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ART. I. *Case of Amputation of the Lower Jaw.* By JOHN WAGNER, Surgeon, Member of the Royal College of Surgeons, London, and Teacher of Anatomy in Charleston, South Carolina.—(With a plate.)

ORCHARD, said to be 56 years of age, the servant of Mr. John Jenkins, of Stono, was admitted into my private hospital, in Broad-street, on the 5th of July, 1826, with a tumour on the left side of his face.

He had a robust constitution, and enjoyed good health until 1819, when he had occasion to have the only remaining molar tooth, on that side, extracted; this produced great pain in the jaw, accompanied by a copious hæmorrhage, that continued, at intervals, a year or more. He thinks the jaw was injured, by fracture or otherwise, at the time of extracting the tooth. He first observed an enlargement of the bone in 1821, and its increase has been very gradual, until within the last twelve months. He has suffered irregular attacks of pain in the whole of that side of the face, which, however, were neither severe nor of long duration.

Upon a careful examination of the parts, within the mouth, the inferior maxillary bone was discovered to be very much enlarged upon its left side; and tracing the tumour, with a finger, upon either side, it commenced from the first bicuspis tooth, and extended backwards, beyond the angle of the jaw, to near the root of the condyloid process; then spreading

itself, *laterally*, over the alveolar processes, it extended *inwards*, beyond the middle line of the mouth, pushing the tongue and uvula to the opposite side, and closing, completely, the view and passage into the fauces; thrusting itself *outwards*, it projected the cheek, so as to occasion great deformity of that side of the face; rising *upwards*, towards the os malæ, it was elevated fully one inch and a half above the level of the teeth; extending *downwards*, it was spreading under the tongue, pressing upon the side of the larynx, and overhanging the trachea. The breadth of four fingers would scarcely cover its upper surface, upon which a depression was passing through its middle, from before backwards, dividing it into two portions; that on the outer side being the largest and most elevated—while that upon the inner side, though the smallest, was causing most distress, on account of its impeding deglutition and respiration. The internal plate of the inferior maxillary bone could be traced to its angle, by passing the finger between the tongue and the tumour; but it could not be determined, by a similar examination between the cheek and the tumour, if the outer plate was also in a sound condition. The appearance of the tumour, within the mouth, is of a white, cartilaginous, and somewhat granulated nature, having the lining membrane of the mouth, in an altered condition, reflected over it; has an elastic feel, and yields a little discharge, but not offensive; it bleeds for a short time after examination or rough handling, which, also, produces an increase of pain for a day or two afterwards. Its growth has been more rapid during the past year, but is not accompanied by much pain or inconvenience, except the interruption to deglutition, which has increased with the growth of the swelling, so as to render it necessary for him to subsist altogether upon liquid food. The pressure upon the larynx and trachea interferes with respiration, but not so much as to distress him. His voice is very much altered and has a nasal sound.

From so great and extensive a growth, *within* the mouth, we will not be surprised to find a corresponding enlargement of the side of the face, *without*; and, consequently, we trace

the swelling from a little below the left eye, depressing its lower lid, and involving the whole of that side of the face, and overhanging the neck, so as to reach to the clavicle, when the base of the cranium is parallel with the horizon. In front it distorted the mouth and nose, and projected backwards to the mastoid process of the temporal bone. The integuments and cheek were healthy and unaltered, and the surface smooth and equal; the absorbent glands, below the tumour, were slightly enlarged.

His general health became impaired as the tumour advanced in size, and he showed some tendency to visceral obstruction by dropsical effusions of the legs and abdomen; on which account I advised a course of purgative and diuretic medicines, before I gave an opinion as to the probable result of an operation. In the course of one week, however, he was so much improved that no doubt remained, on my mind, as to the propriety of removing that portion of the jaw-bone, which was involved in the disease, and on the 13th of July I performed the following operation.

Commencing at the commissure of the lips, I made a simple incision in a straight line, with a scalpel, through the cheek, extending over the masseter muscle to within half an inch of the lobe of the ear; this opened the cavity of the mouth, so as to expose, in its full extent, the whole of the superior portion of the tumour. The upper division of the cheek being raised by an assistant, I began the dissection of the lower lip, from the bone, near to the second incisor tooth, and proceeding backwards, dissected, from the tumour, that part of the cheek and integuments which covered it, upon its side and base; in doing this, it was necessary to raise the insertion of the masseter muscle, so that I could now pass my finger freely behind the tumour and under its base. I next proceeded to extract the cuspidatus tooth, situated in a sound part of the bone, and to divide the bone itself, from above downwards through the socket of that tooth, by means of a small key-hole saw, taking care to avoid injuring the tongue. Then, without difficulty, I separated the divided ends of the bone by drawing towards me the portion connected with the tumour;

this enabled me to prosecute the dissection, with ease, upon the inner side of the jaw, and to separate the tongue and soft palate from the swelling. The tumour being thus detached from its external coverings and its internal connexions, it only remained to divide the bone through its ramus, between the angle and processes, which was done very readily with Hey's saw. The facial artery bled freely at first, so did a branch of the lingual, and the inferior maxillary, as it came out, at the mental foramen; but the timely and dexterous application of the fingers of my friends Doctors Campbell and M'Donald, who very obligingly assisted me in the operation, superseded the necessity of ligatures; and, before the operation was finished, the bleeding from them had ceased. He did not lose much blood, and expressed but little suffering, except when the third branch of the fifth pair of nerves was put upon the stretch, or when it was divided by the knife at the close of the operation.

I thought it prudent to wait a moderate time before I dressed the wound, to ascertain the state of circulation; and in half an hour, as there was no bleeding whatever, I brought the edges of the wound together, by means of the hare-lip pins (four of which I used) and the twisted suture, interposing a strip of adhesive plaster between them; this constituted all the dressings on the outside; but the loss of substance within was so extensive, and the falling in of the cheek so great, as *to oblige me* to introduce into the mouth a piece of sponge of no inconsiderable size: and upon repeating a liberal dose of laudanum, he was put to bed.

Evening. Cheek very much swollen; has a little fever; does not suffer much pain; profuse discharge of saliva from the mouth, mixed with blood; is able to drink water, which he does frequently.

July 14th. Had a quiet night; slept a little; no fever; discharge of saliva, tinged with blood, continues very great; swelling of the side of the face increased—the ends of the pins pressing upon the soft parts cause some little ulceration, which was, however, relieved by passing a strip of adhesive plaster under each of them; has taken some thin gruel,

which he swallows with much less difficulty than could be imagined.

July 15th. Is doing well; swelling not so great; flow of saliva diminished—removed the sponge; is anxious to be allowed some solid food; ordered to continue the gruel.

July 16th. Swelling very much reduced; union of the parts nearly completed; the pin nearest to the angle of the mouth causing some irritation of the parts, was removed.

July 17th. Swelling continues to subside; wound quite united; removed all the pins; parts to be supported by adhesive plaster for a day or two; has eaten a hearty meal of solid food; is able to chew meat, for which he is very anxious; is walking about the ward, and doing well in all respects; the discharge of saliva is lessened; ordered to cleanse the mouth with a lotion of the tinct. myrrh.

In one week after the operation this man was able to leave the ward, take moderate exercise, and swallow solid food, which he divides upon the opposite side of the jaw, functions which he had not performed for a length of time before. The cheek continued swollen a month or more, but had completely subsided when he returned into the country, about six weeks after the operation. There was no attempt at re-production of bone, nor did I expect it, from his advanced time of life; but the divided end of the jaw was covered by soft parts, similar to the gums; and the whole was healed in less than three weeks.

The tumour, after it was removed, was about the size of a fœtal head at the full time; the bony character of the jaw was completely altered, its earthy parts having been absorbed altogether on its outer side, and very much diminished in the whole course of the inner plate, which, however, could still be traced. The swelling then might be said to be contained within a sac, which appeared to be nothing more than the periosteum of the bone in a thickened state, for it could be traced to the healthy periosteum on the sound part of the jaw. It contained a soft medullary substance, easily broken down with the finger, of a whitish colour, and situated between the septa, apparently answering to the sockets of the

teeth. The exit of the artery, at the mental foramen through the periosteum, was very apparent; it was here that the most blood was lost. In this situation all the bony appearance of the jaw was quite removed. The submaxillary and one of the absorbent glands were removed with the tumour.

I cannot dismiss this case without alluding to the very unnecessary hazard a patient is exposed to, who has a ligature applied to the carotid artery before he submits to this operation. The vessels which supply the inferior maxillary bone with blood, are neither large nor numerous, and the increased determination to the part, produced by the disease, can never justify such a step. In prosecuting the dissection of this part, thus enlarged, I feel warranted in saying that, if the knife is properly directed, no other vessels will be divided but those which supply the part with blood. But admitting that large and important branches are cut, by accident or otherwise, will a ligature of the carotid on one side secure the patient from hæmorrhage, especially if, in applying the ligature the day previous to the operation, the vessels have time to enlarge? I think all those who have witnessed the very free and ready passage of the common coarse injections of the dissecting rooms, from one carotid to the other, will answer this question in the negative. Again, besides the unnecessary extension of a very severe operation, endangering the life of the patient, I must say, it is a very unscientific mode of treating the disease, both with a view of lessening inflammation and advancing the cure. I have always been accustomed to consider the necessity of securing a large blood-vessel, in compound fractures of the extremities, as the most untoward circumstance attending such a case; and, surely, the local and constitutional means we possess of keeping down arterial action, are quite sufficient, without cutting off a supply of blood, equal very nearly to one-fifth of the whole system. But I am of opinion, that it is upon the increased arterial action, and consequently no trifling degree of inflammation, that the success of this operation depends; and in the young subject, where we have every reason to look for a complete re-production of bone, I do not think we are justified in crippling the opera-

tions of nature, by taking from her the very source of that re-productive power.

In conclusion—the necessities of this case, though of a very extensive nature, did not induce me to make the ligature of the carotid artery, either with a view of diminishing action or of preventing hæmorrhage; of which last, in truth, there was no danger, and that for the obvious reason, no large artery is concerned in the removal of such a tumour: as witness the case operated upon by Dr. M'Clellan, published in the Boston Medical Intelligencer; and Dr. Benjamin B. Simons' case, reported by the Editor of the Carolina Journal of Medicine. In neither of these was the carotid tied, nor was there any bleeding to produce alarm; and, in both of them, there was such a re-production of bone as to sanction the idea that the jaw would, in time, be again perfect in form, if not in function also.

Broad-street, September 23*d*, 1826.

ART. II. *Account of several Cases of Inflammation of the Larynx and Trachea.* By SAMUEL WEBBER, M.D. of Charleston, New-Hampshire.

HAVING about a year and a half since met with a number of cases of inflammatory affections of the larynx and trachea, constituting an epidemic of very limited locality, I thought that an account of them might not be unacceptable. In connexion with it, I have written a few remarks that occurred to me while employed upon the subject, and which have been still further confirmed by cases occurring in the beginning of the year 1826.

Laryngitis, like most other inflammatory affections, seems to admit of a division into three varieties, according to the severity and rapid progress of the symptoms, viz.—sub-acute, acute, and per-acute.

Sub-acute laryngitis is what is commonly called a hoarse cold, denoted by a feeling of fulness and constriction in the throat; and, in light cases, a harshness and unevenness of

voice, accompanied with a diminution of its volume and intensity, and a greater gravity of tone; while, in more severe cases, it is subdued to a whisper, without the patient's possessing the power of speaking in a louder key, unless at times with great exertion, and then the voice is shrill and small, and the effort to utter it so painful as often to bring tears into the eyes. In these last there is also a slight feeling of soreness in the larynx upon deglutition, which is wanting in the former, and sometimes a little uneasiness or pain in addition to the sense of fulness. The breathing, however, is unimpeded, or so much so as not to attract the patient's attention; and the constitutional affection, if any, is slight, unless, as is sometimes the case, the mucous membranes of the throat, nostrils, or bronchia, participate in the affection. After four or five days, sometimes much less, a tickling is felt in the throat, producing a fit of coughing, resulting in the rejection of a small portion of opaque inspissated mucus; by this the feeling of fulness and constriction is lessened, at least for a time, and the voice is permitted to be uttered in a more natural tone. These fits of coughing take place several times in a day for a few days; the relief produced by them becoming more marked and permanent, until all the symptoms finally disappear. When the inflammation extends to the mucous membrane of the bronchia, the cough is present almost from the first of the attack, is more frequent and longer continued and the expectoration is more profuse.

In two or three severe cases of this variety, which have fallen under my observation, the matter first rejected by coughing had the appearance and tenacity of coagulated lymph, and two or three of the fragments were very exactly of the size and shape of the arytenoid cartilage, appearing as if a deposite of this lymph had been made upon the mucous membrane lining the inner surface of these cartilages. The relief given to the utterance by the rejection of these substances was very striking. In the same cases the matter last rejected had something of a purulent appearance, though more tenacious than true pus.

In this variety the inflammation seems to be confined to the mucous membrane, or the cellular tissue beneath it. It does not usually fall under the care of a physician, generally going off in a few days, as has been mentioned, with the aid only of warmth, diluent and demulcent drinks, and such like remedies as almost every matron feels qualified to prescribe; though in some severe and protracted cases I have been called upon, and have pursued, in some measure, the course hereafter mentioned under another variety.

Acute laryngitis begins with the same symptoms which characterize the sub-acute form, though the pain and soreness, and the difficulty of swallowing, soon become much increased. In a very able essay on this complaint, which appeared in a former number of this Journal, written by John B. Beck, M.D. it is mentioned that there is frequently a slight sensation of soreness in the fauces, and that upon examination they will sometimes be found covered with a slight inflammatory blush. This appearance I have noticed, but the pain and soreness were at once stated by my patients to be in the region of the larynx, extending downward in the course of the trachea. After these symptoms have lasted a day or two, in the course of a few hours they increase greatly in violence, and the breathing becomes impeded. This last symptom soon becomes very prominent, having occasional exacerbations threatening suffocation, and frequently brought on by an attempt to speak, which is highly difficult and painful. These exacerbations become more and more severe, until suffocation actually takes place and destroys the patient. The constitutional affection is often not more severe than in the preceding variety.

The inflammation in this form of the complaint seems to extend to the larynx itself and the adjacent parts, and it is probable that the exacerbation is occasioned by the spasmodic action of the muscles moving the arytenoid cartilages, similar to the spasmodic action that frequently takes place in muscles labouring under rheumatic affections.

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* New-York Med. and Phys. Journal, vol. 3. p. 397.

The per-acute laryngitis is distinguished by the sudden invasion and great violence of the symptoms, and the rapidity of its progress, frequently terminating fatally in a few hours. I have met with no instance of this variety.

It has never happened to me to examine the body of a person dying of this complaint, but the appearances usually found are well detailed in the paper before referred to.

The only disease much likely to be confounded with laryngitis is trachitis, and it is sometimes very difficult to distinguish them apart. Indeed, in laryngitis the inflammation often appears to extend to the trachea, and as the general treatment is the same, varying only according to the greater or less degree of the constitutional affection, the distinction is of little practical importance, except with regard to the benefit to be expected from the operation of tracheotomy, which would be unavailing in those cases of trachitis, in which the coating of coagulable lymph lined the whole passage. The operation, however, even then would do no harm; and as it is not in our power to determine precisely, before hand, the state of the passage, it might always be justifiably performed when other means of saving life were found unavailing.

The cases I am about to relate took place in the space of ten days, from December 30th, 1824, to January 9th, 1825. The weather for a week preceding had been mild, though frequently cloudy and chilly, and when clear at night there had usually been a hoar frost.

Case 1. Dec. 30th. Miss S. W. aged 30, complained in the morning of slight soreness in the throat and hoarseness. The soreness was referred to the larynx as the chief seat, but extended down the trachea to the sternum. The symptoms increased rapidly during the forenoon, and at noon the respiration became difficult; in about an hour more an exacerbation of this last symptom took place, making breathing extremely difficult and painful for a number of minutes, the voice was almost totally suppressed, and any attempt to speak occasioned much suffering. At this time I was called upon. Finding little constitutional affection, the pulse being but 83 or 84 and not materially hard, blood-letting did not appear

to be necessary. I therefore administered a powerful emetic of tart. ant. and ipecac. After the operation of this, I directed a large blister to be applied to the whole front of the throat. In the evening I found that the emetic had operated well both upon the stomach and bowels, and produced great relief to the uneasiness in the throat; no suffocative paroxysm had since occurred, and the speech was much more free.

The blister had then begun to draw powerfully; the skin was warm and slightly moist; the tongue moist and lightly covered with a white fur; the pulse as before. I put 2 grs. of tart. antimon. into a half-pint tumbler of water, and directed her to take a table spoonful, so as to occasion only slight nausea, unless the difficulty of breathing should return, in which case vomiting was to be produced.

I saw her again next morning. A single spoonful of the antimonial solution had produced free vomiting; after which the patient slept well the greater part of the night, having little trouble, except from the blister. The soreness of the throat was much relieved, and the disease was evidently on the decline. I gave a gentle cathartic, and directed the blister to be dressed with simple cerate.

Third day. The patient was still better; troubled, however, with a slight but hard and dry cough, for which a mixture of vinegar of squills and syrup was given. In a few days more she entirely recovered, without any further medicine of consequence.

Case 2. Dec. 30. In the afternoon I was called to N. L. a little girl about 4 years old. She had had a bad cold for two or three days, with some febrile symptoms; that day she appeared worse, and had once or twice a spell of difficulty of breathing, and a short barking cough; the pulse was about 100, and the tongue was covered with a whitish-brown fur. The disease, though not very severe, seemed of the nature of croup. I gave an emetic of tart. ant. and ipecac. combined with six grains of calomel, and directed that, after it had operated, the child's feet should be soaked in warm water, and she should immediately be put to bed. In the beginning of the next forenoon the difficulty of breathing returned slightly for a few minutes; 6 grs. of calomel were given, and an antimo-

nial emetic ordered in case of a recurrence of the difficulty. It, however, proved unnecessary; the calomel produced considerable languor and depression for several hours, but at length moved the bowels freely, and the patient appeared much better. She seemed to require no further medicine more than a gentle purgative, and was soon quite well.

Case 3. My son, an infant one year old, was observed in the morning to be quite hoarse, and to have a short barking cough; otherwise he was well and playful. At noon, I found he had become quite hot and restless, though appearing drowsy; the cough was more frequent and severe; the respiration quick and hoarse, and there appeared to be some soreness in the throat. Two grains of tartarized antimony were dissolved in twelve tea-spoonfuls of water, and a spoonful given every ten minutes, till vomiting took place, which was not till after the fifth spoonful. He vomited several times, seemed greatly relieved, and fell asleep. In the evening, some difficulty of respiration still remaining, two spoonfuls more were given with an interval of two hours. Vomiting was again produced. He slept pretty well during the night; and, with the aid of a small quantity of the solution as an expectorant, recovered entirely in the course of a few days. His diet, during the sickness, was changed from milk to thin gruel.

Case 4. Dec. 31. In the evening I was called to Miss C. D. a young lady of 23. I found her complaining of soreness and pain in the larynx and trachea; the voice was very much suppressed; deglutition was painful, and she had some headache, and a furred tongue; the pulse was very little accelerated; she had had a slight cough for two or three days. As her health was slender and emetics distressed her very much, I thought I would endeavour to avoid them, and gave her six grains of calomel, one grain of ipecac. and half a grain of opium, to be taken at bed-time, the feet having been previously soaked in warm water, and ordered half an ounce of Epsom salts to be taken early the next morning: I was called to her as soon as it was light, and found her complaining greatly of distress at the stomach and nausea; the throat, however, was much easier than on the preceding evening, and she had slept

well. An emetic of ipecac. was given, which operated favourably though painfully, after which the calomel operated, and by night she was much better, except the cough; to quiet this, a grain of extract of conium was given, and with it four grains of the blue pill, to be taken at bed-time, and worked off with Rochelle salts the next morning. These remedies operated very favourably, and the amendment was so great as to render more medicine unnecessary.

Case 5. January 1. About four in the morning, I was called to Miss E. A. a girl of ten years, who was supposed to be labouring under a severe attack of the croup, a disease which she had experienced two or three times formerly. She had complained slightly, the evening before, of cold and soreness in her throat, and was a little hoarse. She went to bed about nine, and was observed, by a person who slept in the same room, to be very restless, frequently turning and tossing about, breathing short and heavy, and giving occasionally a short cough. These symptoms continually increased till the time mentioned, when respiration had become painful and stridulous; the cough frequent and shrill, like barking; the general uneasiness great, with some feverishness, and the pain and soreness in the throat much more severe. An emetic of tart. antimon. and ipecac. was given, which produced great nausea and some retching, though not free vomiting; it however puked her three or four times, after which she became easier and fell asleep. Between 8 and 9 in the morning I saw her again, and found the symptoms still remaining though much mitigated; the pulse 95; the tongue slightly coated, and the skin hot, though moist on the palms of the hands. She then took six grains of calomel. At 12 found her better as to the disease, but suffering much from nausea, with frequent attempts to vomit. The bowels had been moved once, but slightly. A dose of ipecac. was given; after the operation of which, she was ordered to take six grains more of calomel, to be followed in two hours by a dose of sulphate of soda. At 5 P. M. I saw her again. The ipecac. had been rejected as soon as swallowed, and likewise two or three draughts of warm water taken after it; after this the stomach had

been quiet till the salts were taken, which were soon rejected; the bowels had not been moved. Some symptoms of the complaint still being present, five grains more of calomel were administered. The remaining traces of the disease disappeared in the course of the evening, and she slept pretty well at night, though the nausea still continued when she was awake. The calomel, however, did not operate upon the bowels, which were not moved till the next afternoon by repeated doses of infusion of senna and manna. A pretty severe salivation, which lasted a fortnight, was the consequence.

Case 6. January 1. E. P. a fine stout looking girl of 24, had been troubled for two or three days with a hoarse cold, which had this day become much worse, so that her voice was much suppressed, and she complained of great soreness and uneasiness in the region of the larynx and down the trachea, with slight difficulty of breathing, though none of the spasmodic exacerbations had as yet taken place. The head ached; the tongue was furred; the pulse 85; and the skin dry. She took an emetic of tart. antimon. and ipecac. combined with a few grains of calomel. This operated well, and, as she said, relieved the uneasiness entirely, so that I did not prescribe any further medicine. Next morning, however, I was called to her again, and found that the difficulty of breathing had returned in the night, with occasional exacerbations, during which she was obliged to sit up in the bed on account of the sense of suffocation attending a recumbent posture; the hands were cool and slightly moist; the head painful; and the pulse 100, but irregular and not hard. A large blister was immediately applied over the whole front of the throat, and a solution of two grains of tart. antimon., in 12 table spoonfuls of water, was prepared, of which she was directed to take one every two hours, unless the suffocative exacerbations returned, when it was to be taken so as to produce vomiting; an ounce of Rochelle salts was directed to be taken with the first spoonful. This dose operated very freely, both as an emetic and cathartic: after which she continued comfortable through the day, and at night breathed easily, had a slower pulse, less head-ache, and appeared much better.

In the night she had a slight return of the difficult breathing, which was promptly relieved by a tea spoonful of the antimonial solution. After this she rapidly recovered, without any other medicine than minute expectorant doses of antimony and a gentle laxative.

Case 7. R. H. a boy of nearly the age of my son, was attacked in a similar way on the 2d of January. The attack was not quite so severe, and was readily dissipated by an emetic and a few doses of antimonial solution.

Case 8. E. P—n, a girl about 20, after labouring several days under a bad cold and cough, with a soreness of the throat about the region of the larynx, which did not prevent her pursuing her usual employment, on the 10th of January became suddenly much more hoarse, with an increase of the pain and soreness in the throat. These symptoms increased in the course of the forenoon, and at noon the breathing became difficult, with a feeling of suffocation; the pulse was 85. An emetic of tart. antimon. and ipecac. was then given, which operated well and produced much relief. I saw her again in the latter part of the afternoon: the symptoms were still severe, though less than on my former visit. A large blister was applied over the throat, and a sixth of a grain of tart. antimon., with ℥j. of sulph. soda, was given; this operated very powerfully as an emetic, and moved the bowels freely. At 11 P. M. the complaint was greatly relieved, but the vomiting continued when any thing was taken into the stomach. I gave her a few drops of tinct. of lavender and of laudanum, and ordered a little of the infusion of peppermint to be taken occasionally. In the morning I found her still better, the sickness was gone, and she had slept some. A laxative and one or two nauseating doses of antimony completed the cure.

Besides the above cases, there were one or two others beginning in a similar manner, which were arrested at an early period by an emetic, which I furnished without my personal attendance being required. There were also a number of instances of the sub-acute variety about the same time, but which did not require medical aid.

It is worthy of remark, that all these cases, except the 3d and 7th, happened to females, though males are generally considered most liable to the disease. Three cases, the 1st, 6th, and 8th, were very severe, and when I was first called, threatened great danger if the disease then forming should not be broken up. The 4th, though well marked, was seen at an earlier stage and arrested before the most alarming symptom had shown itself. The 3d, 5th, and 7th, bore a greater resemblance to croup than to well defined laryngitis, and must be considered such, if we hold strictly to the common opinion that laryngitis is peculiar to adults. My own belief is, that the two diseases are essentially the same, and merely modified by the changes of structure that take place in the organs of speech at the age of puberty, which renders the larynx more peculiarly the seat of the inflammation in persons that have passed that period of life. In confirmation of this it may be remarked, that all the adults complained of pain and soreness in the trachea as well as in the larynx, though not so severe, that in two of them who had a cough from the first, it assumed somewhat of the shrill ringing sound of the cough in the croup; and that in the two cases where the patients were under the age of puberty and above that of infancy, the voice was affected very perceptibly, though not so much so as in the other. Besides, I have seen it mentioned that dissection has shown that in some instances of laryngitis, the disease has been found to have extended to the lungs.

From all that I have seen and read of these diseases, I cannot but think, that though there may be cases of inflammation of the larynx not extending to the trachea, and of the trachea not embracing the larynx, yet that these are rare; and that both, in general, participate in the affection, though from the difference in the comparative volume, vigor, and tone of the vocal organ, at different periods of life, the weight of the disease is more prone to fall upon that organ at one period than at the other.

Another circumstance that struck me as singular, was the extreme irritability of the stomach in these instances. In no case was I under the necessity of repeating the emetic in or-

der to induce vomiting; and some hours after the first vomiting was over, it was again excited with some severity by doses that commonly would have failed to excite much or any nausea.

All the cases occurred within a quarter of a mile of each other, and six of those narrated, in two families only.

ART. III. *Contributions in Medical and Surgical Practice.* By JABEZ W. HEUSTIS, M.D. of Cahawba, Alabama.*

CASE I. *Stricture.*

A son of Mr. C. No 47 Oak-street, about 11 years of age, was taken on Saturday the 8th of February, 1817, with suppression of urine. As he had not evacuated urine, except in small quantities, I was called on Monday the 10th. Upon introducing the bougie, found considerable resistance, evidently from the existence of two strictures; one of which appeared to be situated about three inches from the extremity of the penis, and the other at the bulb. Upon overcoming the first resistance, the urine flowed in a small stream, and the bladder was, in this way, evacuated. Ordered him to be kept warm.

Tuesday 11th. In the morning, found him comfortable; had made a little water in the night; did not introduce the bougie. At night, the bladder had become much distended, and I again introduced the bougie. Ordered warm tea.

Wednesday 12th. Had passed the water pretty freely, so that there was no occasion for the instrument.

Thursday 13th. I was sent for in great haste; had passed no urine scarcely for the last twenty-four hours; bladder very much distended; found great resistance to the introduction of the catheter. Upon overcoming the first stricture, the water was evacuated. I suffered the bougie to remain all night. In the morning, found that the urethra had contracted so firmly about the bougie as not to allow the latter to be removed without great violence. I, therefore, desisted, and ordered

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* Author of "Observations on Louisiana," and "A Treatise on Fever."

him to be put in the warm bath. Whilst in the bath the passage became so much relaxed that the bougie was withdrawn without much difficulty. Then put him to bed and gave an injection of an infusion of tobacco, in the quantity of three or four tea-spoonfuls. In four or five minutes it had such a violent effect, that it made him deadly sick. Gave an injection of salts and molasses and water, for the purpose of bringing away the tobacco. The symptoms of debility were extreme, and the pulse scarcely perceptible.

Friday 14th, evening. Bladder much distended; had passed no water since the introduction of the bougie; passed the instrument but partly, through the stricture on account of the straightness of the passage. Ordered 50 drops of nit. ether and laud. in proportion of one part of the latter to six of the former, to be given to him at bed-time.

Saturday 15th. General health much the same, and but little impaired; appetite pretty good. Used the warm bath; upon coming out of which, I injected infus. nicot. into the urethra, and was then able to pass the bougie. Before putting him in the bath gave him a nauseating dose of tart. ant. and a pill of opium and soap. Repeated the bath in the evening, the nit. ether, and the nicot. injection, but could not pass the bougie, though a small probe was introduced through the stricture. Let him have a pill of opium and soap at bed-time.

Sunday 16th. Found the penis much inflamed; passed a small probe and drew off the water; directed the application of a poultice to the part. In the evening the inflammation had increased; directed the poultice to be discontinued. I should previously have mentioned, that the infusion of tobacco on Saturday the 15th, in the quantity of nearly one small syringe full, in about two hours, brought on an alarming degree of relaxation and debility, so that the patient could scarcely articulate in a whisper, and lost all power of motion. They sent for me in great haste, saying, that their little boy was dying. I went and found him in the situation described; directed some warm mixture to relieve the sickness of his stomach, for he had been much harassed and exhaused with vomiting—(I should also have added, in addition to the nicot

inject. he had also taken 60 drops of sp. nit. and laud. which still further increased the effect)—In a little time he seemed to be relieved of his deadly sickness, and I went home. The remaining portion of Saturday night was passed in great suffering, in bearing down pain, inclination to make water, and screaming.

Monday 17th. Inflammation not quite so high; has kept warm cloths, wet with lead water, applied to the parts; passed the probe with difficulty; called for Dr. Mott; we went there about 5 o'clock; I attempted to pass the probe, but found it impracticable from obstruction of a hard solid substance that filled and distended the passage. Dr. M. took the probe and pronounced the existence of a calculus. It was close to the extremity of the penis, but so large that it could not be got out after numerous and patient trials. The extremity of the urethra was then split up, and a calculus about the size of a mulberry extracted.

Case II. *Dropsy.*

Cahawba, Ala. Mrs. B. æt. 22, had been affected with ascites for about 9 months; had been under the care of Drs. Meux and Gantt, but experienced no permanent relief. When I saw her, she was very much swollen in the body; feet and ankles anasarcous; pulse frequent, but soft; no fever; appetite irregular and sometimes excessive; menses suppressed; unable to rise from the bed without assistance, but, when up, can walk across the house; is frequently troubled with a cough sometimes attended with spitting of blood, probably from the pressure of the water upon the diaphragm and thorax. Put her upon the use of digitalis and squills, &c.—gave from three to six grs. digitalis daily, which produced a remarkable diminution in the frequency of the pulse; gave vinegar of squills, saturated with sal. nit.—took a tea-spoonful twice a day; took calomel so as to affect the mouth; gave muriated tincture of iron, 12 drops, two or three times a day, with great benefit; gave also, at first, two or three doses of jal. and cream tart. In about a month she was entirely relieved; and during the session of the legislature, not six weeks from the time I saw

her, she attended a ball in Cahawba, and took a part in the dance. This was in the latter part of the fall and beginning of the winter of 1821.

Case III. *Hydrothorax and Fever.*

Squire M'L——d, æt. 55; was called to see him April 6th; found him afflicted with shortness of breath; œdema of the feet and legs; pale, bloated, and sallow; great beating of the carotids; pulse frequent and hard; skin dry and hot; sickness and vomiting in the morning; often starts in his sleep, with a sense of suffocation; integuments of the thorax swollen. I was at first of the opinion, that his fever and quickness of the pulse proceeded merely from debility, and that moderate tonics might, perhaps, prove serviceable, if combined either with diaphoretics or diuretics. For this purpose I gave the tinct. ferri muriat., sp. nit. dulc., digitalis, and squills, and calomel and sarsaparilla. Upon my next visit, three days afterwards, I gave him an emetic, which brought up nothing but some mucus. Fever still continued.

Sunday, May 12. Found that his fever had rather increased. I accordingly resolved upon taking away some blood; about half a pint, or rather more was drawn, which looked very pale and watery. I left for him two doses of calomel and jalap, with orders to take one in the morning. I at the same time ordered the tinct. ferri, digitalis, squills, nitre, and sarsaparilla, to be discontinued. I was then absent from home till the 15th.

15th. I was told, when I reached home, they had sent for me twice, with information, that Mr. M'L——d was dying—that his extremities were cold, &c. I hastened to see him, apprehensive that the cathartic had operated too severely and produced prostration. I found him comatose and quite insensible, not attending to any object; his fever was high; the carotids beat violently, and his skin was hot and dry. The blister that had been applied to his breast had produced a serous and bloody effusion; his head was much affected, and I was apprehensive that water had been effused into the cavities of the brain. I now treated him upon the principle of sub-

duing his fever and removing the dropsical affection. I left him powders, composed of about 12 grs. of nitre, 1 of calomel, and 2 of antimonial powder, to be taken every three hours, and for his constant drink, cream of tartar and water; about every other day I exhibited a powerful dose of jalap and cream of tarter—giving, at the same time, sp nit. dulc. and ammon. every three hours. Under this treatment his febrile symptoms gradually disappeared. During the remissions of the fever, which were inconsiderable, I directed him to take the bark. Under this treatment, in about six weeks, his fever and dropsical symptoms had left him, and his mouth had become quite sore from the use of calomel. I then put him upon the use of tinct. ferri, but directed him to continue the cream of tart. drink, though not so freely as formerly.

August 31, 1822. I understand he is now quite recovered. He still remains in good health—Sept. 22, 1826.

Case IV. *Enlargement of the Spleen.*

J. B. H. had been for three or four years affected with an enlargement of the spleen, occasioned by fevers from attending crops on the river lands in Georgia. The spleen had increased from year to year, but had become peculiarly large and uncomfortable for the last twelve months. He had been under the care of a number of Physicians, but had received no benefit; the complaint still continuing to increase.

I visited him August 13, 1823. I found him much emaciated, with a sallow countenance; œdematous feet; abdomen much swollen; pulse tense, though not much increased in frequency. Upon examination I ascertained that there was a considerable collection of water in the abdomen, which could be perceived fluctuating between the spleen and abdominal integuments. For the last three or four months he had been taking calomel, and using mercurial frictions to the abdomen, until the mouth became affected, and then taking cal. and sulphur, together with some bitter herbs in whiskey, of which he was directed to take a wine glassful three times a day. Under this treament he grew rapidly worse, became more emaciated, enfeebled and dropsical. I put him upon the use of

digitalis, 6 grains a day, and cream of tart. for constant drink, and nit. acid, 25 drops, three times a day.

On the 19th, to be nearer to me, he came to town, when, in addition to the nit. acid, I gave him vinegar of squills, saturated with nitre, a tea-spoonful three times a day, and cal. about 3 grains daily.

On the 20th, I found that the digitalis had produced considerable head-ache, sickness, and stupor, and ordered it to be discontinued. The nit. acid sickened him in the quantity of 30 drops, ordered him to reduce it to 25. Under the use of the digitalis and nit. acid, he found, for the first few days, his strength considerably improved.

On the 21st, I gave him a dose of cream of tartar and jalap, of cream tart. 1 ounce, jalap 40 grains; having first ascertained that a smaller dose was not sufficient.

August 22. Complained of being more weak. Continued the medicine, with the exception of the digitalis.

August 23. Felt tolerably well this evening. Perceiving hardness of the pulse, I took away about six ounces of blood, which was tolerably rich and very sizy. The mercury begins to affect the mouth.

Sept. 25. Has considerably improved under the above treatment. The spleen is much diminished; the dropsical swelling has subsided; his feet have ceased to swell; he discharges about twice the quantity of water that he did in health; the urine is much lighter coloured; his appetite improved, and what he eats sits easy on his stomach. For the last week I ordered him to take the digitalis, 2 grains three times a day; the squills and nitre, twice a day; a dose of cream of tart. 1 ounce and jalap 40 grains; the mercurial frictions, and exercise on horseback. When first I saw him, he could not sit up more than an hour at a time; he can now ride with ease fifteen miles in four hours, and walk without fatigue, nor is he under the necessity of lying down in the course of the day. To the astonishment of all, this man was restored to health.

CASE V. *Fracture of the Skull, with the loss of a portion of the Brain.*

On the 21st of September I was called to visit a negro boy, aged about 14, belonging to Mr. T. residing about five miles from Cahawba. The preliminary history of the case is as follows :—On the preceding night this lad, in company with some other negroes, had been out hunting opossums by fire-light. Having found one of these animals in the top of a tree, they commenced cutting it down. Intent upon the object, they paid but little attention to the situation of the boy. Suffice it to say, that the tree in falling struck the lad upon the head, and laid him senseless and motionless upon the earth. Being at some distance from home, he was not removed until the next morning. I saw him about 10 o'clock A. M. of the same day. He was in a state of torpor and insensibility, nor could he be roused to the least attention ; his body was cold, and his pulse feeble ; the upper eye-lid of the right side was much swelled, so as entirely to close the eye ; and there was a puffy tumour, with a circumscribed hardness, about the middle of the left parietal bone. Finding that the force of the blow had fallen principally upon this point, I cut through the integuments and muscles, down to the skull. A fracture and depression were now evident. I followed the course of the fissure with the knife, running partially across the left parietal bone, crossing the sagittal suture, taking in an angle of the right parietal bone, and then crossing the os frontis diagonally to the external angle of the right eye. To gain a greater freedom of access to the injured parts, I made another incision at right-angles with the first, and dissected up the flaps sufficiently to operate with facility upon the fractured skull. There was an irregular depression of the left and right parietal bones, including a portion of the os frontis near the commencement of the fracture, nearly the size of half a dollar ; from this the fracture extended in a fissure to the orbit of the right eye, which, together with the os frontis, was bursted open nearly half an inch in width, the membranes of the brain above the orbit were broken, and a portion of the

brain, together with blood, was discharged upon making the incision, and the brain continued to protrude through the fissure at every pulsation during the operation. In order to remove the fractured pieces, and to elevate the depressed portions of the parietal and frontal bones, the trephine was applied in two places. During the operation the boy discovered no consciousness, except when the inflamed and swollen integuments of the forehead were cut through. The whole extent of the fracture was about eight inches in length. Having removed the broken pieces and the sharp angles, I brought the integuments together by means of adhesive straps, and applied the necessary dressings and bandages. I directed cream of tartar dissolved in water for his constant drink, and on the ensuing morning gave orders for the exhibition of a dose of castor oil. On the 23d, two days after the operation, I visited him again. His consciousness had, in some degree, returned, and he had spoken once or twice. On the sixth day the dressings were removed. In about eight days from the operation he was able to sit up a little, and in a month more was perfectly recovered. He is now (Oct. 5, 1824,) a fine healthy negro, and the openings in the bones of the head, produced by the operation, have closed over with new bony matter.

CASE V. *Amputation of an Inflamed and Sphacelated Arm.*

In the month of August, 1823, a man by the name of J. B., a labourer, given to intoxication, was concerned in moving a house. In bringing the building to its place, his fore-arm was caught between the foundation and the sill of the house. The muscles upon the inside of the arm, the portion caught, were partly separated from the bones, and mangled and lacerated in a shocking manner. He came under the management of another physician, who, about the third day after the accident, called upon me in consultation. The arm was much inflamed above the elbow and somewhat swollen ; an offensive sanies was discharged from the sloughy and mangled surface of the fore-arm, and gangrenous vesicles were rising upon the

integuments. Even at this stage I deemed an operation hazardous, but yet I considered it his only chance. I was persuaded that, instead of the mortification stopping at any definite point, and forming a line of demarcation between the sound and diseased portions, the extent of the injury would cause the gangrene to extend to the body, and terminate in the death of the patient. The attending physician, however, delayed the operation until the next day, when I was again called upon. The arm was now still worse and more offensive than it was the day before, and the inflammation, swelling, and incipient mortification, had extended nearly to the shoulder joint.

The arm was now taken off high up. The integuments, on the under side of the bone, had become green, from the spreading of the gangrene. The wound, after the operation, was dressed in the usual manner. Upon partially removing the dressings on the third day, it was found that mortification had attacked the stump, which was now dressed with the bark and charcoal poultice, and the patient put upon the use of bark and wine. Under this treatment the mortified portions of the integuments and muscles sloughed off in a few weeks, and the man recovered.

This case shows that operations may be performed on parts in a high state of inflammation, and even of incipient mortification, without proving fatal. In large limbs, as the legs and thighs, the operation, under these circumstances, might be more hazardous and uncertain.

Case VI. *Bronchotomy.*

On the 6th of January, 1826, I was called to see a child of three years of age, which was represented as being in a dangerous situation and not expected to live, from having, about a week previously, accidentally been choked with a grain of corn. As it was late in the evening, on the 5th, when I was sent for, and the person lived twelve miles distant, I did not go until the next day.

When I arrived I found the child suffering under the symptoms described by systematic writers as characteristic of the

presence of extraneous substances in the trachea. The respiration was rattling, the breathing short, and often laborious, with frequent and distressing paroxysms of coughing. I stated to the parents, that there was no other chance of relief but from an operation; and sensible that the child could not survive in its present situation, they, at length, consented to the painful alternative. The little girl was extended on a table, and properly supported by assistants at the head and extremities; the head was suffered to fall back a little over the edge of the table, and kept steady and secure in that position. In a child of that age there is but little choice of situation, I therefore commenced my incision upon the prominent part of the *thyroid* cartilage, extended it upwards and downwards through the integuments about an inch and a quarter, which was as far as the parts would admit of the incision being safely made; and in doing this, I at one time found myself very much incommoded by the blood, which gushed with considerable violence from a divided vein. This I secured with a ligature, and proceeded cautiously with the operation, checking slight hemorrhages by the temporary application of a soft rag wet with a solution of sulph. zinc. Having exposed the windpipe, I carefully made a longitudinal incision with the point of the scalpel, extending it in both directions as far as the external opening would permit, which might, probably, be about half an inch. The incision and opening being completed, and the foreign body not presenting itself at the orifice, in the trachea, which I kept open as well as I was able with the edge of the spatula and probe, I introduced the probe into the windpipe and endeavoured to seek for the extraneous substance, but without success. I then introduced the director, and pushed up its extremity above the opening of the glottis. Not being able to discover the grain of corn, I dressed the wound with lint and unguentum simplex, and had the little patient conveyed to bed. For a while it appeared to be considerably relieved, and I was induced to believe that the offending substance had been removed. I remarked to the friends, that it was either removed, or had fallen so low in the windpipe as to be beyond the reach of any instrument that

could be properly introduced. As the breath passed principally through the wound, the grain of corn, if it had not been removed, would in a short time be forced through the opening. It was, however, two days after the operation before the grain presented itself at the wound, and was removed but little altered by its long continuance in the windpipe. It was somewhat softened and swollen, but showed no appearance of vegetating. It is almost unnecessary to say, the little patient entirely recovered; the wound gradually healing, by filling with granulations, and in little more than a fortnight was entirely closed.

Remarks.—Though I do not find the remark made by surgical writers, the presumption is, that a wound caused by the operation of bronchotomy never closes by the first intention. Adhesive plaster is of little avail in keeping the new opening closed, and sutures appear to be equally ineffectual, as the whole force of the breath, in expiration, is principally directed to this new opening. The weakness of the voice, and this unnatural artificial air-hole, through which the breath, froth, and serous matters, are constantly discharging, are apt to alarm the fears and excite the sympathies of relations and friends; but as there is but little danger from an operation of this kind, the surgeon may safely assure them that the operation alone, should it not prove successful, can have no effect in causing the death of the patient. It is a little remarkable, that this grain of corn should have remained so long in the windpipe without proving fatal. The symptoms in cases of this kind are often so severe and urgent that, unless the extraneous substance should be expelled by the effects of coughing, (an occurrence that seldom takes place,) or removed by an operation, strangulation, exhaustion, and death speedily ensue. Here, however, we have an instance of a bulky substance, a large grain of Indian corn, remaining in the trachea of a small child eight days without producing death. I have known cases, however, still more remarkable; for instance, watermelon-seeds remaining in the windpipe several weeks, and even months, causing all the symptoms of phthisis pul-

monalis and producing suppurations, at length expelled with the expectorated matter, the patient then recovering. If it be asked, why bronchotomy was not performed? I might say, that, in one instance, the cause was not known, and in the other, the parents would not consent. I knew a little girl that for several months was excessively harassed with a most distressing cough, rattling, wheezing, and difficult respiration, so that death, at last, was daily expected as the only refuge of the little sufferer. At length, one night after a severe paroxysm of coughing, it was discovered that something had been coughed up, which, upon examination, was found to be a feather that had been sucked into the windpipe with the breath. The feather was nearly two inches in length, but it had remained so long in the trachea that most of the plumage was worn off and decayed, and but little besides the stock of the feather remained. It is probable that more persons, and particularly children, die from causes of this nature than is generally imagined; for, although to the experienced practitioner there is little difficulty in ascertaining the existence of this affection, yet with others it is not so; and, unless the child itself or the family know the fact, the complaint may remain unknown, and the patient die with some other supposed disorder, as the croup, or inflammation of the bronchiæ.

ART. IV. *Case of successful Extraction of the Astragalus after Compound Luxation.* By ALEX. H. STEVENS, M.D. Professor of Surgery in the University of New-York. Drawn up by ELIAS J. MARSH, A.B. of Amboy, N. J.

A STOUT young black fell with a hod on his shoulder, by the giving way of a scaffold, from a height of fifty feet, and which caused a compound luxation of the astragalus inwards. Being immediately conveyed to the New-York Hospital, he had a cordial draught, and Dr. Stevens found him an hour after the accident trembling and agitated, but with a warm skin and good pulse. He lay upon his back, with his left leg strait and resting on its outer side. The integuments and

capsular ligament, over the inner side of the ankle-joint, were rent, and the surface of the astragalus, which articulates with the os culcis, occupied and rather protruded from the centre of the wound.

Dr. Stevens passed his finger into the wound, over the tibial [upper], now become the fibular [outer], aspect of the astragalus; and by hooking it around the bone, and at the same time pressing upon the posterior edge with his thumb, endeavoured to turn it on its axis in a direction contrary to that in which it was luxated. Finding this manœuvre impracticable, he tried next to pull out the bone, but it was firmly fixed, and admitted of very little motion in any direction. Extension was made upon the foot, by drawing down the heel and instep, while the leg was flexed upon the thigh. These efforts, like the preceding, being unavailing, Dr. Stevens immediately removed the bone. The scaphoid end was brought out foremost. The poor fellow cried out with pain when the bone was pulled, more than during the division of the ligaments with the knife. Not more than an ounce of blood flowed from the incision. Upon a minute examination of the bone, the processes to which the ligamentum inter fibulam and astragalum posterius, and ligamentum fibulæ anterius are attached, were found broken off. The limb was laid flexed on its outer side on a splint suitably covered with tow and a pillow beneath it. The edges of the wound were dressed with lint, and a roller rather loosely applied around the foot and leg, including the splint.

Half an hour after the operation he was more comfortable than before it was performed. His pulse slower, and febrile re-action taking place, cream of tartar was ordered. In the evening he became more excited; he was bled by Dr. De Lima, the house surgeon, and was ordered, while awake, half an ounce of the acetate of ammonia every two hours, cream of tartar water continued.

2d day. He has passed rather a restless night; had one severe twitching in the limb, which, however, is not at all displaced; his bowels have been freely moved; complains of

stiffness in the sore; pulse 112. Lemonade in lieu of the cream of tartar solution, and at night a full dose of Dover's powders.

3d day. The leg above the wound was covered with cold lead water; the other remedies continued.

4th day. The symptoms have gradually been increasing in severity; pulse 120; tongue dry and white, with a brownish stain in the centre; was delirious last night, and slept little, on account of the constant twitching of the leg.

5th day. Had his bowels opened by medicine; some fetor in the wound; a poultice of bread and milk applied, and the dressings changed.

6th day. Febrile symptoms subsided; medicines discontinued; arrow-root ordered.

13th day. Has taken chicken soup; is much more comfortable than at the last report; complains of soreness near the outer ankle; a deep ulcer, apparently communicating with the joint, is discovered behind the fibula, and the leg is placed in an extended position on the heel, between two splints, each having a foot-piece, and simple cerate is applied to the wound instead of the poultice; allowed some ale.

22d day. Much recruited; the matter has made its way along the tibia; the limb is placed in the double inclined plane to favour its discharge, and strips of soap plaster are passed around the leg to prevent its lodgment; soap and water injected into the suppurating cavities.

25th day. The granulations are rather pale; ordered to be washed with a solution of the nitrate of silver; a roller is applied pretty firmly to the leg and foot, and holes are cut in it for the discharge of matter; ordered compound infusion of gentian.

After the leg and foot were confined between two splints with foot-pieces for one month, he has gradually improved. At the present time (Dec. 1st) he is able to walk, with a cane, with considerable ease and flexibility of the ankle-joint, and is steadily improving. The deficiency in the length of the limb is very trifling.

ART. IV. *A Case of Chorea Sancti Viti.* By JAMES FOUNTAIN, M.D. of Yorktown, West-Chester County, New-York.

THE subject of the following case was a daughter of Mr. Wood, a wealthy and respectable merchant of Bedford West-Chester county, and a patient of Dr. Mead of that place. She had just entered her fourteenth year; her temperament was highly sanguineous; her constitution delicate, with a great flow of spirits; she had previously enjoyed good health, and had menstruated regularly. By some means her catamenia became suppressed in July, 1826. Her complexion soon lost its rosy hue, her eyes their lustre, and her countenance its vivacity; her spirits sunk, and she became pale and emaciated. For her relief Dr. Mead very judiciously put her on a course of mild tonic treatment, and under it she appeared to gain strength slowly until the 13th of September. On this day, military exercise having been performed around the house, she was observed to be startled at the sound of the drum, and evinced signs of fear and agitation. At dinner she was so affected by spasms in her fingers as to eat with difficulty; the extensor muscles were, at this time, mostly affected, throwing back her fingers. On the night of the 14th her mother slept with her, and, from the motions of her legs and arms, had much difficulty in keeping her covered. On the 15th I saw her the first time; pulse 75; bowels regular; tongue natural; countenance pale; appetite not much impaired. She was dejected and wished to be alone, and had slight twitchings in her fingers and feet, and yet could walk comfortably. At this time the indications of cure appeared to be *to invigorate the nervous system, and thus restore its healthy movements; and to reinstate the catamenia.* I advised an emetic, to be followed by the tinct. muriat. ferri, 25 drops three times a day; and an infusion of cortex cinchon. and oxide of iron, to be drank *ad libitum;* also 3 pills, to be taken at bed-time, composed of aloes, myrrh, assafœtida, and castile soap.

Sept. 18th. I found her pulse a little elevated; other symptoms much the same; the pills had failed to produce any effect either on the bowels or uterus; continue the tonics in larger doses, and let her take two pills at noon and three at bedtime.

Sept. 21st. I was sent for in haste; found her every way worse; had not slept in twenty-four hours; pulse 95; tongue yet clean. The pills had procured two motions daily; strength declining; spasms frightfully increased; almost every voluntary muscle in motion; articulation interrupted; deglutition very difficult; mind alienated; she frequently screamed violently, and tossed so much as to require the unremitting attention of three or four persons; hair dishevelled; clothes rent: exhibiting, in short, the most melancholy and heart-rending picture that can be imagined.

To wait any longer for the slow process of invigoration was, at this time, out of the question. The following indications now presented themselves, out of which the means of cure were to be chosen: 1st. *To allay sensibility:* 2d. *To create a more powerful action in the nervous system than that which constituted the disease:* 3d. *To institute a new, sudden, and permanent vascular action sufficiently intense to overcome the nervous irritation.* The disease being now fully evolved, continued independently of remote causes; the removal of the amenorrhæa was, therefore, a matter of secondary consideration only.

The means of fulfilling the first indication, were the anodynes; of the second, were the antispasmodics, properly so called; and the most effectual means of fulfilling the third, were the irritants. I advised resting the cure on the last indication, and recommended the arsenical solution, ten drops every two hours. To watch the phenomena of the disease and the effects of the medicine, I remained by her bed the three following nights. She commenced the solution Sept. 21st, at 6 o'clock P. M.

Sept. 22d, at 9 A. M. Having several motions from the pills previously administered, attended by some nausea, we diminished the dose of the solution to 5 drops, and called in

the aid of the first indication, by adding to each dose 5 drops of the tinct. opii. At 6 o'clock P. M. of the same day, the stomach and bowels being quiet, and the symptoms unabated, we settled on the dose of ars. solut. 10 drops, tinct. opii 4 drops, every two hours.

Sept. 23d. Spasms no better; had slept a little by being held firmly by three attendants; continued the medicine all day. At evening, vascular action became intense; pulse 120 with some force; tongue white; thirst considerable.

Sept. 24th. Had slept soundly between 4 and 6 o'clock, scarcely moving a muscle; at 8 discontinued the medicine, and administered ol. ricini ℥iss.; at 12 had a good operation from the oil; resumed the solution and tinct. every two hours; spasms less.

Sept. 25th. Pulse 120 and firm; spasms much abated. At evening, feeds herself and is able to stand alone; has taken 300 drops of arsenical solution in four days. For a change I advised the arsenical pills,* one every six hours, and a laxative every third day. I did not see her again until Oct. 3d, when Dr. Mead gave me the following history:

Sept. 26th. Spasms had wholly left her, and she slept well. 27th. Was comfortable, but gloomy and suspicious; reduced the pills to three a day; no spasms. 29th, 30th, and Oct. 1st. No alteration; pulse all the time 120; had taken thirteen arsenical pills. Oct. 2d. Yet gloomy; free from every other symptom; tongue coated with a white scurf; pulse 120 and jerking; walks steadily. The nervous irritation having been completely supplanted by vascular action, I advised the discontinuance of the medicine, and some mild laxative to be administered; also, to defer the use of tonics until the arsenical commotion should have subsided.

Oct. 10th. I saw her again, and found her cheerful and well. Oct. 26th. Perfectly well; health, spirits, and complexion, all returned. I would beg to observe, that no swell-

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* These and the solution were prepared according to formulæ p. 434.

ing of the face was produced, and that neither *dropsy*, *consumption*, nor *rheumatism*, have yet appeared.

Remarks. In the treatment of all diseases purely sthenic, relief, if ever obtained, is somewhat progressive from the commencement until recovery is effected. This, however, is not the case with diseases of irritation, which appear to be governed by laws peculiar to themselves; for when treated on the principle of counter-irritation by doses or medicine to overcome them, the morbid process is thereby aggravated, gathering new strength by opposition. This elevation seems to be an effort to maintain their own action; and this effort is called forth by whatever tends to disturb or supplant their order: thus, if an intermittent is attempted to be cured, and this principle and the means fail, the disease is only aggravated. Small doses of calomel increase the pain of dysentery; but large doses, as a scruple, allay dysenteric irritation, by producing their own peculiar movements. Small doses of stimuli, by creating moderate febrile excitement, always aggravate tetanus; but a table-spoonful of tinct. opii and a gill of brandy, every half hour, soon overcome the disease. Moderate excitement, also, aggravates asthma; but a severe inflammation of the lungs, consequent upon the measles, I have known to cure an old asthmatic. Hence, to practise counter-irritation successfully, two requisites are indispensable: 1st. A knowledge of the nature and intensity of the morbid process: 2d. A knowledge of the comparative strength of the irritant to be employed, and the extent to which its administration may be safely carried. These can be acquired only by experience, a patient and scrupulous study and observation of the phenomena of the disease, and of the effects of the agents used. To know what *can* and what *cannot* be accomplished by medicine should be the constant study of every practitioner, for to attempt the latter is about as reprehensible as to neglect the former. With respect to the extent to which the administration of arsenic may be safely carried, an adult may take, in extreme cases, five grains in twenty-four hours, provided he labours under no dyspeptic or other gastric

affection, and takes a cathartic within twelve hours after the last dose.

Note. About the middle of November I was again called to visit this girl, and was informed that, after having been free from every symptom of her disease about a month, she had a return of her irregular motions, consequent to a severe cold induced by a long ride on a windy day and sudden change of weather the night following. I found her greatly agitated when attempting to do any thing or to speak to any one not a member of the family. At other times, the disease was scarcely cognizable. Dr. Mead had again put her on the use of the *arsenical pills*, three a day. I advised their continuance; and, at bed-time, two pills of aloes, assafœt. and myrrh, warm pediluvium, and copious potations of the infusion of pennyroyal *(mentha pulegium)*, as the catamenia had not yet appeared. The night subsequent to my visit she menstruated. Since that period she has improved rapidly, and at this time she enjoys fine health and is becoming quite robust.

Art. VI. *Remarks on Calomel.* By Dr. Moore Hoyt, of New-York.

The most trivial errors in medical subjects can never be viewed as harmless; but those arising from improperly associating cause and effect, are most fraught with evil, as they destroy the value of experience, and thus prolong the experimental part of every physician's practice.

In the New-York edition of Thomson's Conspectus, under the head of Hydrargyri Submurias, it is said—"Children bear larger doses than adults." Were this a solitary remark of the kind, I would not make it a subject for comment; but being the expression of a vague belief entertained by many, and as it has an important bearing upon an excellent mode of practice, it ought not to pass unnoticed. With opinions formed from similar remarks, I commenced practice with full confidence in the safety of large doses of calomel in diseases of

"children"; but observation (not indeed requiring great labour or attention) has convinced me that children are not all alike, and that diseased action, in them, is not always the same.

The assertion quoted implies, that calomel is a poison—that its noxious effects (like those of all other poisons) are displayed in proportion to the quantity administered—but that "children" have the power of withstanding the operation of this poison beyond that possessed by adults.

It is now generally conceded, that an adult will bear, with perfect safety, 20 grains or more of calomel, or that 20 grs. are as safely administered as one; and further, that this dose is less liable to produce salivation (the only positive evidence we have of its poisonous quality) than one half the quantity given in minute doses. Now, to say it would be *still more safe* to administer to children 20 or 25 grains is absurd. But it is the idea that large doses of this medicine are admissible in diseases of "children"; that, I conceive, to be mischievous, because the circumstances, which may render the article salutary or beneficial, are not taken into consideration, and we are left to draw the conclusion, that it is infancy, or some necessary attendant upon infancy, which renders the practice safe, and not any peculiarity of constitution which one child may possess and another of the same age be without. It will be admitted by almost every practitioner, that doses, containing the same quantity of calomel, may be administered to a certain number of children, without regard to their diseases, and produce fewer cases of salivation than in as many adults under similar circumstances. I have no doubt of this fact, and as little, that no other peculiarities of constitution protect the infant than those which, in rarer cases, exempt the adult from this unpleasant concomitant of remedial effect. The comparison of a few facts will give this opinion as much the appearance of truth as sometimes supports more mischievous hypotheses. Young children display in health an activity of arterial circulation far beyond that of the adult; and in a view of their diseases, we find that a majority of them consist in, or are at least attended with, a high grade of arterial ac-

tion. Now, as far as I have been able to discover, the diseases of adults, in which physicians have safely and successfully prescribed large doses of calomel, have been those of a high grade of arterial action, either general or local; although the peculiar morbid action, for which it has been found an appropriate remedy, has not been sufficiently defined, it having been reported as highly useful in certain diseases, the names of which are often made to include a great collection of discordant phenomena. That it is this kind of increased action which is successfully combated by the liberal exhibition of calomel, is further confirmed by the late experiments of Mr. Annesly, who, among other conclusions, came to the following—that "the operation of calomel, in large doses, is opposed to inflammation;"* and, also, by a remark in accordance with this, made by the intelligent reporter of the diseases treated at the New-York City Dispensary, viz.—"there is something in its action [i. e. calomel] allied to a sedative effect."† Armstrong's observations, though not so directly to the point, tend to strengthen this position. He says, "very full doses of calomel generally produce *in fever less irritation* than small ones; and indeed, when combined with opium, so far from creating, commonly allay, irritation."‡

Dr. Peixotto states, that he gave to a dysenteric patient, in six days, "nearly three hundred grains"§—under which treatment the patient convalesced without salivation. That dysentery is a disease of debility, I believe no physician of the present day is disposed to assert. From a view of these facts we are authorized in drawing the conclusion, that it is a certain grade of arterial action above the standard of adult health, in which calomel is exhibited with safety and advantage in large doses; and as we most often find children, either in their states of health or disease, possessing a higher toned

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* Ed. Med. and Surg. Journal.

† N. Y. Med. and Phys. Journal, vol. v. p. 458.

‡ Armstrong's Essay on Typhus, p. 328.

§ N. Y. Med. and Phys. Journal, vol. iii. p. 334.

circulation, in proportion to their other functions, than adults, I think we may infer, that the same cause existing in them produces the same effect. This is certainly preferable to the preposterous conclusion, that "children" will bear a larger quantity of any poison than adults.

I consider this subject practically important, because we sometimes meet with cases of disease among children, where, from defective excitement, a large dose of calomel would prove highly detrimental by still further exhausting the debilitated powers of life; and et, in these cases, the same remedy, in minute doses, may be an agent capable of effecting much good. A line ought, long since, to have been distinctly drawn between these different states; and with a view of aiding an accomplishment so desirable to the practitioner, the following general practical statement is offered as a mite to the common treasury.

I first acquired confidence in the safety of large doses of calomel, in certain cases of infantile disease, from observing the practice of certain *country physicians*, who, if they do not always treat disease with all the punctilious ceremonies of the art, might frequently boast of a success which nicer means would have failed to produce. The results, in my own practice, have confirmed me in the belief, that this article may be given as liberally, in *many* of the diseases of children, as any other on the list of the materia medica, however innocent in its reputation, not only with positive safety, but with visible benefit. This is more than can be said of the majority of medicines that are administered to this class of patients, who are, I believe, too often the victims of an indecisive course, the consequence of ill-directed medical refinement.

In the treatment of many cases of cholera infantum, I have had, on the one hand, abundant and gratifying proof of the unrivalled efficacy of large doses of calomel; and on the other, sober demonstration of the pernicious tendency of indefinite rules. In the accession of this malady, or before the vital energies become too much exhausted, more by the protraction of the disease than by its violence, large doses of calomel have seldom failed, in my hands, of arresting it, and

of laying the foundation for a speedy convalescence. But those instances in which I have only seen the patient after an indefinite period of illness—when the disease having struggled with, and overcome in a measure, the vital powers, and both were gradually sinking together, with " fitful struggles for supremacy," a scene that too often meets the eye of the physician; in the very few cases in which a large dose of calomel has been administered, I have been convinced that the practice was not only injudicious but prejudicial. The operation of the remedy, in these cases, appears not to be followed by any re-action, and, of course, adds to the previously existing debility. I do not know that I ever saw a fatal termination from this practice; but have felt the necessity of exercising the most assiduous attention to sustain my patient under its effects. In cases of cholera, attended with excitement, two or three grains of calomel, given in divided doses, would probably allay the vomiting; but 10, 15, or 20 grains will do more, by means of the powerful tendency it has to remove whatever there may be of local inflammation or general morbid excitement; and I fear not, that fact will controvert the assertion that the patient afflicted with cholera infantum who is made to retain in the stomach a single dose of fifteen grains of calomel, with all other remedies utterly proscribed, has the chances in favour of his recovery over the patient who is treated in the too common routine, in the proportion of two to one. As it respects graduating the dose to the age, I must confess that I have never been so happy as to become acquainted with that rule of proportion which, *in fact*, adapts a certain dose to a certain number of months. The patients who have been subjected to this mode of treatment have been chiefly between the ages of eight and eighteen or twenty-four months. If the article in question (when indicated) were one of doubtful or dangerous operation, I could not excuse myself for the least shadow of indifference upon a point that *would then* be important; but such is *not* the case; and with this impression I have repeated the remedy whenever the unsubdued symptoms appeared to require it, after a lapse of twelve or twenty-four hours. The object of this paper being

confined merely to the consideration of a single article of the materia medica, that of other remedies which are sometimes useful as adjuncts in this disease, is purposely omitted.

In cholera infantum, with defective or exhausted excitement, small stimulating doses, nearly the same as recommended by Dr. Dewees in his late work, which, while they regulate the various secretions, do not exhaust, have, with me, seldom failed. The same remark will apply to the diarrhœa that attacks children most frequently during the second summer. It is difficult to conceive a disease more completely atonic in every feature than this: the paleness, loss of flesh, sinking of eyes, frequent liquid dejections, bilious, or oftener without a vestige of bile, the aliment of whatever kind passing unchanged—altogether mark a state of extreme debility, and one in which calomel is invaluable, but not in large doses.

I pass over many of the common febrile affections of children, in which the employment of the *mercurial febrifuge* has been more successful than any other plan of treatment I ever witnessed, to notice more particularly two cases possessing that kind of importance which diseases, often fatal, are invested with.

The first was a case of hydrocephalus in a child of twelve months, treated in the fall of 1822. In addition to the usual symptoms which render the existence of this disease probable, there was a tumour at the anterior fontanelle of the size of a butternut—also, strabismus. The child had been observed to droop for several weeks; the commencement of the tumour was first observed about two weeks before my visit; the squinting had not been observed till I directed the mother's attention to it.

A variety of means were employed in obedience to the best authorities, while the disease continued to advance slowly, but steadily, to its triumph. The treatment of the case was finally rested upon calomel, in doses of twenty grains, of which four or five were given with intervals between them of forty-eight hours, when the tumour had nearly or quite disappeared, and the medicine was administered after longer periods. I found it necessary to give the calomel for several

weeks as often as once in four or six days, or signs of a re-accumulation of fluid would appear. But the attacks of disease became gradually less effective, as nature had, by degrees, more opportunity to repair damage and stand upon her defence.

I have selected this case from among three that were treated with the same view, and nearly on the same plan, (of which one terminated fatally,) because the diagnostic marks in this did not admit of doubt.

The second case was one of tabes mesenterica in a child of four years, which, after a long attendance, had been dismissed by another practitioner as incurable. The abdomen was very tumid, with an uneven or knotted feel; extreme emaciation and muscular debility; a weak and very frequent pulse. This case was successfully treated in precisely the same manner as the above, only it was sooner terminated.

These cases, perhaps as much unlike each other as any on the list of "ills," are introduced as instances of the important constitutional effects that follow the exhibition of liberal doses of calomel. They are also, from their location and peculiar nature, probably, as completely removed from the sphere of remedial influence as any that we are called upon to treat; yet they both yielded to the constitutional effect of calomel; an effect, I conceive, entirely the reverse of that which for a long time was viewed as the only beneficial one, viz.—that attended with, or the consequence of, salivation.—There was not, in either of these cases, that degree of general excitement which I have usually considered necessary for the suitable exhibition of the remedy; but in each, after the depressing influence of the local disease was diminished, there was a general re-action, like that observed to follow venesection in those local diseases attended with a depressed pulse, only in the one case it is more immediate, and in the other of slower appearance, but more permanent.

ART. VII. *Two Cases of Compound Fracture of the Patella, with Remarks.* By STEPHEN BROWN, M.D. late Surgeon of the Alms-House and Penitentiary, and one of the Physicians of the New-York Hospital.

IN March, 1825, a girl, aged 23, being confined as a vagrant in the Penitentiary at Bellevue, in attempting to make her escape from prison mounted the wall which encloses the yard, and in descending fell a considerable distance. The right knee struck upon a stone with such force as to fracture the knee-pan and lacerate the soft parts completely through into the cavity of the joint. The fracture was transverse and above the centre of the bone, so that the lower portion included about two-thirds of the bone, and the upper one-third.

The resident surgeon dressed the wound with lint and bandaging.

The following day I made my regular visit to the Institution, when this case was brought under my notice. The whole knee was now much swollen and extremely tender and painful upon the slightest movement; the pulse was rapid, with a considerable heat of skin, thirst, &c. The discharge from the wound was thin and watery.

I directed that the patient be kept lying upon the back with the leg extended upon a pillow, and the knee constantly enveloped with an emollient poultice, made with Indian meal and water, be smeared with hog's lard when spread and about to be applied, with a dossil of lint interposed between the wound and poultice.

Inflammation had supervened to such a degree, before this course was adopted, that it continued to increase, and the constitution suffered to an alarming degree. The knee became exquisitely painful, and the impression upon the nervous system was so great that it produced a rapid and feeble circulation, with great prostration of strength.

Three or four days after the injury her situation appeared so critical that several surgeons, who saw the case, thought amputation of the thigh ought to be performed without delay.

The operation, however, was deferred, notwithstanding the case was such, during two weeks, as to render it doubtful whether amputation would not eventually be necessary, as the last resort, for the safety of the life of the patient.

The poultice was applied without moving the limb, by drawing pieces of muslin or linen under the hollow of the knee sufficiently broad to contain the poultice, which was then brought around the knee so as to confine it snugly to the affected part, without motion. In about four or five weeks, from the accident, the swelling and tenderness of the knee had abated very much; the wound, which had emitted an offensive discharge, put on a more healthy appearance about its edges, and the discharge became better conditioned. At this time, on account of the alarming prevalence of jail fever, it became necessary to remove the patients in this ward to a room one story below. In this removal such motion was given the affected limb as to bring on inflammation, which resulted in a copious formation of matter about the joint; and the ulcer, which was before in a fair way of healing, did not heal under two months from the injury, and such a degree of tenderness and pain continued, that the poultice was applied during three months. Other applications were made by way of change, after the wound healed, but nothing had so good an effect, in abating pain and tenderness, as the poultice. After the tenderness had so much abated that she could bear a light pressure to approximate the fragments, a bandage around the knee, in the form of the figure of 8, was gently applied, and over this the poultice. This was not attempted, however, under three or four weeks after the accident.

The fragments united by ligament nearly an inch from each other. At this time there was a considerable degree of weakness and rigidity of the knee, and the power of flexion was very limited. She was, however, in a short time able to bear her weight upon the knee, and the power of flexion increased so that, about the last of August, she was discharged from the Institution.

Last March I saw this girl and examined her knee particularly. In appearance it did not differ from the other, ex-

cept the two portions of patella were about an inch apart united by an intermediate substance. That it was a ligamentous substance that united them was evident, as by fixing the lower portion firmly, the upper one might be moved from side to side, as freely as an ordinary patella when the leg is extended. At this time she could walk without limping—could ascend and descend a staircase with facility; yet there was some rigidity still remaining, and pain after much exercise.

The 13th of December I again examined this girl's knee, when she informed me, that it was as "supple and sound as ever," as she sustained little or no inconvenience from it.

Case II.

George W. Kniffen, aged 23, was admitted into the Hospital at Bellevue with a compound fracture of the *patella*. It was occasioned by the blasting of a rock, which, being charged, was accidentally ignited while he was standing near. A piece of stone struck the *kneepan*, which fractured the bone transversely, and lacerated the soft parts, so that an opening was made into the cavity of the joint.

The surgeon who was first called to the case closed the wound by the interrupted suture, over which he applied lint and a bandage. The day following the accident (Thursday) he was carried to the Bellevue Hospital. A cooling wash was now applied to the part and continued till the Sunday following, when an emollient poultice was first applied, made of Indian meal and water. At this time the knee was much swelled and painful. The ligature was removed from the wound, which had not at all united, owing to the high degree of inflammation which had supervened. The pulse was upwards of 120, and the patient manifested symptoms of *delirium tremens*. To counteract this affection and allay general irritation, opium was freely administered.

The pulse rarely fell below 120 in a minute during three weeks after the accident. The patient was kept as quiet as possible, with the leg constantly extended in an easy position, and the poultice renewed twice a day.

As soon as the inflammation and tenderness had sufficiently subsided to admit the application of an apparatus to bring the fragments nearer each other, this part of the treatment was very judiciously conducted by Dr. King, the resident surgeon, by means of a broad splint placed under the limb from the nates to the heel, and a bandage gently applied in the form of a figure of 8, and over this the poultice.

The poultice was not left off entirely under two months. At this time the wound had healed, all swelling had subsided, and the patient enabled to bear some weight upon the affected limb. In April he could walk about the room. At this time he could bend his leg considerably. He continued to gain strength and motion in the affected leg; and about the 1st of June took his discharge from the Institution.

I have not seen this man since that time. He could then bend his knee so as to walk with considerable ease; and from its rapid improvement during three or four weeks previous to his discharge, there was a much better prospect of the complete recovery of the flexibility of the knee (which was all that was deficient) than in the case of the girl above related, even eight months after her injury.

Remarks.—These cases are communicated with the hope that they will not prove uninteresting to the profession. As far as they may be regarded important in a practical view, they should be considered not only in relation to wounds of *large joints*, but also to the treatment of ordinary fractures of the *patella*.

With regard to the knee-joint, it has been truly said by a celebrated anatomist, that, in its structure, it is "the most complicated and (by daily melancholy proofs) it is known to be the most delicate joint of the body." Death sometimes takes place in a very few days from a serious injury of this joint bringing on inflammation, which terminates in suppuration. "Extreme pain, fever, and delirium, usually precede dissolution."

Very serious consequences *sometimes* result from simple incisions or punctures into large joints, as violent inflammation, extensive suppuration, hectic fever, caries of the extremities

of the bones, with an absorption of their cartilages, anchylosis of the joint, &c. But *lacerated wounds* are always attended with much greater danger than simple incised wounds, because the parts do not so quickly unite, and the cavity remains longer imperfect. So great is the danger to the life of the patient, that it always becomes a serious question with the surgeon in such wounds, either of " the *elbow*, *knee*, or *ankle-joint*, whether amputation ought not to be immediately performed." The danger to the patient, in such cases, may arise from *gangrene*, *tetanus*, *inflammatory fever*, *extensive suppuration*, *hectic fever*, &c.

No general rule can be given to guide the surgeon in the painful and momentous question of amputation. Many cases undoubtedly occur in which such violence is done to the bones, blood-vessels, tendons, ligaments, nerves, &c. as to leave no doubt of the propriety of an immediate resort to this painful alternative.

In less severe injuries, where there is not much destruction of surrounding parts, an attempt to save the limb has frequently resulted in the death of the patient.

When a student, "The Practical Observations in Surgery," by Mr. Hey, of Leeds, made a strong impression upon my mind; and whenever wounds of joints have come under my observation, the principles and practice inculcated by Mr. Hey I have duly appreciated. In wounds of large joints Mr. Hey remarks, " the utmost care should be taken in these cases to prevent inflammation. Upon this circumstance chiefly depends a successful termination. I have seen many large wounds of the great joints healed without the supervention of any dangerous symptoms, where due care has been taken to prevent inflammation; while injuries, apparently trifling, will often be followed by a train of distressing and dangerous consequences, where such care has been neglected. It is generally easier to prevent inflammation in the joints after a wound, than to arrest its progress when once begun. I speak of inflammation affecting the *capsular ligament*."

It is well known to those who have read this excellent practical volume, that Mr. Hey's practice was, 1st. to place the

limb in an easy position, with the muscles as much relaxed as possible: 2dly. the atmosphere was excluded by bringing the lips of the wound together, if practicable, by suture, and then to keep the part covered with soap plaster spread upon tow, or with an emollient poultice: 3dly. opiates administered occasionally as circumstances might require. He remarks, "a slight degree of redness and tenderness in the integuments only, is of little consequence; but when the *capsular ligament* becomes inflamed, the formation of abscesses, attended with a high degree of fever, and ultimately of stiffness of the joint, are common consequences, if the life of the patient is preserved."

Wounds of joints, therefore, always place the surgeon under a weight of responsibility, and the serious consequences so frequently resulting from them, render this subject peculiarly interesting.

Some advise immediate amputation in cases where there is laceration of the ligaments and parts about the joints; and if an attempt be made to save the limb, the first appearance of inflammation should be met by the lancet and other depletory means.

In relation to the treatment of wounds of joints, Dr. Dorsey remarks: "on the first approach of inflammation bleeding is to be performed and carried to as great an extent as the patient's strength will warrant. Topical bleeding, by cupping or leeches, is next to be employed," &c. This seems to be the fashionable mode of treatment, in such cases, among surgeons generally. Free depletion, as in ordinary inflammatory affections, is thought imperiously necessary, and the surest means of guarding against serious consequences. But may not the propriety of this practice be called in question?

It will, doubtless, be acknowledged by all, that in wounds of joints the danger arises from inflammation of the capsular and other ligaments, and the tendinous fascia about the joints; and that inflammation of the skin and cellular substance is of trifling consideration.

The reader acquainted with anatomy has already learned, that *ligaments*, *tendinous fascia*, as well as *bone*, have that pe-

culiarity of structure which admits of no sensibility when sound. It is only in the inflamed state that they transmit impressions to the brain, and then become more exquisitely sensible than the softer parts of the body in a similar condition. Now as all our efforts, in such injuries, should be directed to prevent inflammation in parts which have a languid circulation and no sensibility in the sound state, or to reduce such inflammation when taken place, it becomes an important question—does our experience in the use of the lancet, in various diseases involving inflammatory action of bones, ligaments, &c. warrant the practice of free depletion, as recommended by our highest authorities and generally practiced, in wounds of the joints ?

Whatever may have been the opinion of Mr. Hey in regard to this subject, it is a fact, that of eight cases of wounds of joints, which he published in detail as successfully treated, blood-letting was employed in only two: one was a case of compound dislocation of the ankle-joint, in which he took *nine ounces* of blood on the second day after the accident: the other was a compound dislocation of the last joint of the thumb; in this case inflammation took place in the hand and arm, and notwithstanding the use of " bleeding, purging, &c. several large abscesses formed in the fore-arm." The patient, however, recovered.

In chronic rheumatism, various scrofulous affections, as white-swelling, osteo sarcoma, nodes, &c. and other inflammatory action affecting the more solid and insensible parts of the body, the lancet is not much employed; and even in inflammatory rheumatism it frequently continues so obstinate, even after free and copious bleeding, that many practitioners discard the use of the lancet and depend on other means. In the gout the lancet has been generally condemned, especially when seated in the extremities.

Whenever inflammation takes place in those parts which are destitute of sensibility in a sound state, *time* is required for its reduction. Inflammatory action in wounds of the ligaments and parts contiguous to large joints, occasions great sensibility of the nervous, and consequent excitement of the san-

guiferous system. But does blood-letting produce any speedy effect in relieving the local inflammation? It certainly does not. *Time*, as I before remarked, is required for the reduction of inflammation in the more solid parts.

If, then, general blood-letting does not produce a decided impression upon the local disease, may it not often (perhaps generally) increase the irritability of the nervous system, which, co-operating with the local disease, heightens the danger rather than benefits the patient? This will depend, in a great measure, upon temperament, as also upon the extent of the wound and violence done to the part; and, also, upon the extent of the blood-letting employed. Extensive wounds will, doubtless, suffer from the loss of a much smaller quantity of blood than less severe injuries, even though the cavity of the joint be exposed.

May not *tetanus* sometimes be induced in irritable habits by too much loss of blood, thereby increasing the mobility of the system? May not the debility induced in other cases hasten the patient's dissolution from *exhaustion*, *from more extensive suppuration* occasioned thereby, and consequent symptomatic fever?

I am disposed to the belief, that injuries of large joints produce a *fever of irritation*; the treatment of which should be particularly directed to operate upon the *nervous system*. The most important step in the treatment is to place the limb in such a situation as will produce the greatest relaxation of its muscles, and then guard against motion as long as the inflammatory action continues. 2dly. Emollient applications to the part, the best form of which is the poultice. 3dly. Opiates; and these may be applied to the greatest advantage directly to the part and upon the poultice; they may be given, also, internally, as the urgency of the case may require. An emollient poultice, constantly to the part, has a peculiarly soothing effect. It not only precludes the admission of external air into the cavity of the joint (a source of great irritation,) but is very efficacious in relaxing the part—in abating heat—thereby lessening pain and inflammation, and, consequently, relieving general excitement. If blood be taken at all, it should

be drawn directly from the part, and without pain or motion in the limb; and this can be done only by means of leeches; and even this should not be depended upon to the exclusion of the steps in the treatment above mentioned, but which should be rigidly observed.

If it were thought advisable, I might extend this communication by detailing some other cases of wounds of joints successfully treated upon the above plan. I would, however, barely mention one more, in which a tenpenny nail was thrust deep into the cavity of the knee-joint by a fall upon a board through which the nail penetrated. This was a tedious case; but the man recovered, with the exception of a permanent stiffness of the knee.

2dly. The result of the above cases afford useful facts in relation to the treatment of ordinary fractures of the patella. It has been a matter of doubt among some surgeons, whether a union by bone ever takes place between the fragments of a broken patella. When there is some space between the parts a ligamentous or tendinous substance connects them. I have no doubt that this kind of substance also unites them when in close contact.

Some authors have thought that fractures of the patella *could not be cured.* Indeed, the French Academy of Surgery once adopted this opinion. They say the structure of "the *rotula* differs from that of other bones."

Other writers have contended, that some degree of lameness must always be the consequence of the fracture of this bone; and Mr. Hunter observed, that there was often a difficulty in effecting a union of its fragments; but he supposed the difficulty arose from some portion of ligament falling between the fragments.

The unfavourable termination of those cases which have given rise to the above opinions may have been the result of bad management, by applying apparatus to the knee and making unequal and painful pressure, before the inflammation and tenderness were sufficiently subdued in the ligaments and parts about the joint. Dessault very justly remarks, "that inflammation of the articulating surfaces, in the ligaments

about the joint, ought to have more influence in constituting an unfavourable prognosis than any circumstance that authors have mentioned."

In a transverse fracture of this bone, which occurs most frequently, the fragments are more or less separated by the retraction of the extensor muscles of the leg attached to this bone. This separation is often considerable. The violence occasioning the fracture gives rise to inflammation, sometimes to a very high degree.

Now if, while the parts are in this state, pressure be made use of to keep the fragments in contact, the pain and irritation thus excited will keep up the inflammatory action in the ligaments and tendinous fascia about the joint. May it not be owing to this circumstance that ill success so often attends the treatment of the fracture of this bone? In the cases above related, the laceration of the soft parts, attended with a high degree of inflammation, forbade the application of bandages under several weeks after the injury. Great caution was then observed that they should not be so tight as to excite pain. The poultice was continued, at the same time, to keep the parts relaxed and counteract any irritation which the pressure would tend to produce. The fragments were united by an intermediate substance nearly an inch apart. The use of the limb was completely restored in both cases. If the efforts of the surgeon were directed to promote a union of the parts a little distance from each other, by which much pressure might be avoided, the union, no doubt, would be greatly facilitated; while, at the same time, freedom of motion, together with the vigor of the limb, might be restored.

Mr. Bell was of the opinion that the motion of the limb might be as well performed with a slight separation of the fragments as by a close union. Mr. Pott thought that such a separation would enable the patient, after his recovery, to walk with *more ease*. Flagani entertained the same opinion.

ART. VIII. *Case of Anomalous Delivery.* By JOHN W. STERLING, M.D. member of the Royal College of Surgeons, London.

[Read before the Medical Society of the County of New-York.]

ON the 1st October, 1826, I was in attendance on Mrs. S. aged 27 years, who was in labour with her fourth child. During the whole period of utero-gestation she had enjoyed a tolerable share of health; but from the time of quickening, which was not so strongly marked as in previous pregnancies, she did not feel that vigorous motion of the child to which she had been formerly accustomed; and during the latter months of her pregnancy, she was occasionally subject to paroxysms of such "dreadful pain," in the hypogastric region, that she became impressed with the idea that she would not survive the birth of her child. Until the day of her accouchement, however, she incessantly underwent a great deal of fatigue, and was generally able to attend to her ordinary household duties.

The labour was of 24 hours duration. The vertex of the child's head presented. On the first examination I thought that I felt the membranes protruding before the head of the child; but when the mouth of the uterus became more fully dilated, I could not distinguish any bag of waters, and I thought that the child's head had been thrust forwards before the waters, and that the membranes were drawn tightly over it. The latter part of the labour was severe in the extreme; and on the protrusion of the head I was prepared to rupture the membranes, lest the child should be drowned in its own liquor amnii; but was surprised to find that the head was not enveloped by the membranes, and no liquor amnii discharged. The child was born perfect; the skin was somewhat shrivelled, as if it had lost some of its plumpness. The placenta was thrown off about fifteen minutes after the birth of the child. It was thick and dense; the membranes covering one side of its uterine surface were whitish and opaque, but smooth and shining, apparently indicative of some inflammatory action having previously existed at that part; on the other side of

the maternal portion there was a slight laceration of the placenta, but no loss of substance; for on putting the lacerated edges together, they came into exact coaptation.

On attempting to remove the placenta, I found that it was retained by the membranes, which, on trying to extract, began to give way, which induced me to pass my hand higher up the vagina, when my fingers struck against a body possessing considerable firmness, which I thought might possibly be the presenting part of another child: on examining externally, however, I found the abdominal tumour so greatly reduced in size that I concluded such was not the case. I introduced my hand into the uterus, and passing my fingers over the edge of this substance attempted to extract it, but the effort produced so much pain in the back of my patient that I was obliged to desist. Notwithstanding, I repeated my efforts three or four times, but the pain was so severe that I gave over all further attempts for its removal. It appeared to be firmly attached to the inferior and posterior portion of the uterus near its cervix, and I came to the conclusion that it was an organic disease of the womb.

I remained with my patient about an hour after the delivery of the placenta, in the course of which time this substance was discharged. It was about two-thirds the size of my hand, of a triangular form, about an inch in thickness at its centre and base, gradually becoming thinner as it approached its edges, and enveloped in a delicate membrane. To it was attached a small white worm, about five or six inches in length, and a line in circumference. This worm was apparently alive when I first saw it; for, on putting it into a vial of water, it kept itself suspended, but on substituting spirits for the water it fell in a coil to the bottom of the vial.

On examination of the substance discharged, it was found to be perfectly free from any putrid odour, and for three or four days it still retained its sweetness. On cutting into it, it appeared to be an organised mass, with membranous septa running in a longitudinal direction and vertical to its surfaces: these septa were about a quarter of an inch asunder, and thin interspaces were filled with a structure approaching in its na-

ture more to that of muscle than any other structure with which I can compare it. Intermixed with this mass were found minute spiculæ of bone; larger portions of a semi-cartilaginous structure; numerous hairs, and a quantity of dark coloured carbonaceous substance of diverse forms and dimensions. In short, I considered it to be what is usually denominated "a mole."

With respect to the formation and growth of this substance, I am disposed to believe, that, at the time of conception, two ova had been impregnated, both of which entered the uterus; that in one, the function of epigenesis went on regularly and progressively to the formation of a perfect fœtus; while in the other, from some cause or causes to us unknown, there was a deviation from the natural and regular course of this process: or, that two fœtuses were actually formed, one of which became dissolved or absorbed, whilst those parts, which were of a more solid structure, resisted for a longer period the absorbent process, and that the placenta, still remaining adherent to the uterus, and deriving from it the vessels destined for the nourishment and growth of the fœtus, these vessels still continued to pour out their secretions, and deposited the uncouth mass which has just been described.

How to account for the worm is beyond my philosophy.

The deficiency, or total want of the liquor amnii, may be accounted for, by supposing the existence of previous inflammation in the amnion, whereby the mouths of its vessels became closed, and a further secretion of the liquor amnii prevented. There was the appearance of inflammatory action having been set up in a portion of the membranes covering the maternal surface of the placenta, and the membranes which enclose the waters were extremely lacerable.

The mother recovered without any unpleasant symptoms. For a day or two, subsequent to parturition, she complained of considerable pain in the back, but the lochia were profuse, and, as usual, gradually declined towards the end of a month from the period of her accouchement.

I consider this case as of some importance in a physiological point of view, and may lead to the inquiries:—Is the li-

quor amnii absorbed by the cutaneous vessels of the fœtus? Is the liquor amnii so necessary for the protection of the fœtus in the latter as in the former months of gestation? It may be stated by some, that in this case there must have been some waters discharged previous to the birth of the child. I cannot positively affirm that this was not the case; but my examinations were so strict, that had the least quantity of waters been evacuated it would scarcely have been possible for it to have escaped detection. Besides, the child was smaller than some of which this woman had been previo sly delivered, and the latter part of the labour was much more severe, which I attributed solely to the dryness of the parts, and the want of that degree of relaxation of the passages which the discharge of the waters necessarily induces. I have not the least doubt that the liquor amnii was absorbed in utero, but whether by the amnion or the fœtus it is difficult to determine. I am not aware that the existence of absorbents has been demonstrated in the amnion; but as all secreting organs in the body, with whose minute structure we have been made acquainted, are found to possess these vessels, we may reasonably infer that they also exist in the amnion. If this was not the case, as this membrane forms a shut sac, and its secreting surface is so very extensive, the quantity of fluid that would accumulate in it in the space of nine months, would be very great, far greater than is usually found at the termination of this period. In persons of a lymphatic temperament, in whom secretion greatly predominates over absorption, this fluid is increased to such a degree as to form what is called dropsy of the ovum. In morbidly formed sacs, the internal surfaces of which are lined by a serous structure, the quantity of fluid which accumulates in a short period is very great—in dropsy of the ovary for instance.

I do not think that, in this instance, the liquor amnii was absorbed by the amnion; for, if inflammation of the amnion was the cause of the cessation of this secretion, the same cause must have operated on its absorbent vessels also, by closing their mouths. We must then attribute its absorption, in this case, to the fœtus alone.

I have no doubt that the liquor amnii existed in the first months of utero gestation; for it is scarcely possible for so delicate a structure as the human embryo to grow or exist in the early stages of pregnancy, unless separated from the sides of the uterus by the distending effects which the accumulation of this fluid necessarily produces upon its cavity. It is this fluid which enlarges the cavity of the uterus, removes its pressure from the embryo, in which it floats, and which gives its different organs room to sprout and grow. In the latter months of pregnancy this fluid may not be so absolutely necessary, for the fœtus has acquired a greater degree of firmness; its circulation is more vigorous, and it is better able to resist the injurious effects which the pressure of the uterus might produce upon it.

Art. VIII. *Quarterly Report of Diseases treated at the New-York City Dispensary, from the 15th Sept. to the 15th Dec. 1826.*

Anasarca	6	Linguitis	1
Amenorrhœa	29	Menorrhagia	5
Aphthæ	3	Mastitis	1
Abscessus	9	Mania	2
Ascites	4	Nebula	1
Abortio	1	Ophthalmia Simp.	13
Arachnitis	1	——— Chron.	7
Bronchitis Chron.	39	——— Tarsi	7
——— Acut.	44	——— Purulenta	1
Cephalalgia	18	Orchitis	1
Cephalea Nauseosa	3	Obstipatio	6
Cholera	5	Otirrhœa Purulenta	2
——— Infantum	3	Phthisis Pulm.	19
Cardialgia	5	Paracussis	1
Colica	7	Pleuralgia	24
Contusio	65	Pneumonia	35
Caries	2	Pleuritis	9
Contorsio Spinæ	1	Pertussis	12
Concussio Cerebri	1	Parotitis	5
Cataract	2	Paralysis	3
Dyspepsia	34	Porrigo Decalvans	1
Delirium a Potu	6	——— Scutulata	5
Dentitio	5	——— Favosa	20
Debilitas	5	——— Larvalis	3
Diarrhœa	50	Plethora	12
Dysenteria	63	Psoriasis	3
Dysmenorrhœa	2	——— Palm.	5
Dysuria	1	Phlegmon	4
Diabetes	1	Prurigo	3
Erysipelas	8	Paronychia	2
Enteritis	3	Phymosis	2
Febris Simplex	60	Podagra	1
——— Remittens	41	Rheumatismus Chron.	91
——— Intermittens	138	——— Acut.	4
——— Typhus	7	Rubeola	7
——— Puerperalis	1	Syphilis	20
Fractura	3	Scrofula	2
Fistula in Ano	3	Stremma	15
——— Lachrymalis	1	Scabies Inveterata	3
Gastritis	1	——— Vesiculosa	7
Gastrodynia	15	——— Postulæ	6
Hydarthrus	1	Strophulus Confertus	5
Hydrocephalus	1	——— Intertinctus	1
Hæmoptysis	4	Scarlatina Simplex	2
Hepatitis Chron.	11	Sycosis Menti	2
Hæmorrhois	8	Tumor	16
Hernia	2	Tinea Ciliaris	2
Hydrops	1	Tonsilitis	10
Hysteria	2	Trachitis	2
Hydrargyritis	1	Urticaria	1
Herpes	3	Ulcus Cornæ	5
Icterus	10	——— Chron.	32
Impetigo	6	Ustio	10
Lienteria	1	Urethritis	20
Leucorrhœa	3	Vermes	23
Lichen Simplex	1	Vulnus	21
Laryngitis	4	Variola	15
Lithiasis	2	Varioloid	2
Luxatio	2	Vertigo	12
Lepra	1		
		Total	1309

The diseases of the past quarter have been wholly without interest. The number of applications have been less for the same length of time, than at any former period; and those cases, which have fallen under our notice, have been chiefly of that common character requiring but a few simple remedies.

The usual number of autumnal *intermittents* have been met with; they were principally of the tertian type, and submitted readily to quinine, preceded by full doses of calomel and emetics. We have made trial, in several cases, of arsenic, given in comparatively large doses; but we cannot say that we have seen any reason to prefer it to the quinine; indeed, we think that the disease is more apt to return after its use, at least it has so happened when we have used it. Its effect upon the *liver* seems to be more evidently pernicious than when the preparations of cinchona have been given. This has not been owing to any neglect in not having previously cleared the first passages, or in having given it at improper periods; for we have been extremely careful to precede its administration by free purging, and to give it during perfect apyrexia. This effect upon the viscus we attribute to its peculiar irritation of the stomach and the sympathetic implication of the liver, which usually takes place when, no matter from what cause, that derangement occurs. In one case, the same sympathy we have seen extended to the lining membrane of the fauces and aphthæ, accompanied by the peculiar foul tongue attendant upon this consequence of gastric derangement.*

For ourselves we are of opinion, that arsenic is a remedy which we may have recourse to as a *dernier resort*, when quinine has failed in putting a stop to the paroxysm of an intermittent; but whilst we have the latter, to us there appears no good reason why the former should be preferred. We would not be understood, however, as wholly proscribing its use—

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* Note. The manner in which we have used it has been that recommended by Dr. Fountain. (See 19th No. of this Journal.) Extreme care was taken in following his directions, especially in the administration of a purgative five or six hours after the last dose.

as undervaluing its powers, or as objecting to its general administration, from any of those fears which we have heard publicly proclaimed ;—these, indeed, we think are fanciful, arising more from a spirit of contentious opposition than from any practical experience of its asserted dangerous and frightful effects.

Dysentery.—This disease has presented itself in its usual numbers ; but we have nothing peculiar to offer, either as to its character or treatment. From additional experience of the use of calomel in large doses, as noticed particularly in our last report, we have become more firmly convinced of its usefulness. As connected with this disease, however, we may here relate the following case of metastasis. There is nothing, perhaps, important in its history, but it may not be devoid of interest to those who have never met with a similar occurrence.

A cartman of intemperate habits was affected with dysentery, for which, after other domestic remedies, he took a curious compound—gruel made with meal and a strong decoction of oak bark. This acted *charmingly*—to him ; but, in the course of thirty-six hours, he was seized with most acute pains in the joints, darting with extreme violence through his whole frame. On the 16th November he applied at the Dispensary. Upon visiting him we found both knee-joints swollen, tense, and accompanied with excruciating pains ; the left wrist and elbow were in like manner affected ; tongue clean on its edges, foul and dry in the centre ; pulse frequent and bounding, but compressible ; skin hot ; thirst extreme. As these symptoms evidently depended upon a too sudden check of the dysenteric affection, the indication was plain enough ; and, therefore, he was treated as if it were an acute case of that disease.—Hyd. s. mur. 3ss. c. pulv. rhei, grs. x. divided in four parts, one of which was directed to be taken every fifteen minutes—emp. lyttæ to the calf of each leg, and after the operation of the calomel, half an ounce of spts. mindereri every hour. The calomel answered extremely well, the first powder affording relief: the discharges black, slimy, and very offensive.

On the following day we found that the heat and swelling of the joints had considerably subsided; he had slept well; pulse soft and less frequent; tongue clean. Directed pulv. Doveri, grs. x. c. pulv. camph. gr. ij. to be taken every fourth hour. He was seen the next day; had no pain; joints of nearly their natural size; a little stiffness remaining, for which he had liniment. Discharged.

Arachnitis.—This case, which we consider as one of a chronic character, developed itself suddenly from an increased determination to the brain, produced by a pulmonic affection. In all cases of cerebral disorders, this effect is remarkably evident; for where (from whatever cause) respiratory obstruction or a congestion of the lungs takes place, a preternatural fulness in the head is kept up, and thus contributes, in no small degree, to cerebral phlogosis. There can be no doubt, we think, that, in the following case, chronic inflammation had been for some time going on, and we can easily conceive how this may have been suddenly rendered more conspicuous by the increased determination necessarily consequent upon pulmonic congestion.

Case. A porter, aged 35, of a full plethoric habit, applied at the Dispensary for relief on the 28th October. About three weeks previously he accidentally fell into the river, and had complained ever since of head-ache and slight cough, which was increased at night when in a recumbent position. On the above day, while sitting in the common room of the institution, he suddenly dropped from his seat in an epileptic form of convulsion, which lasted three or four minutes. Upon his recovery the usual examination, as to name, residence, &c. was gone into. His answers appeared to be rational and consistent, and as he only complained of slight cough, some simple medicine was prescribed for him. After leaving the Dispensary he stopped at a friend's house, where he was seized with another convulsion. He was then taken to his own residence. The accession of fits increasing in number, a private physician was sent for, who bled him to the amount of between thirty and forty ounces, and directed the application of

sinapisms to his feet. Late on the same evening we were requested to see him. The convulsions, at this time, succeeded each other with a singular regularity—the interval being about fifteen minutes ; the left side and upper extremities were most affected, and the head was drawn slightly backwards and towards the right side ; his head hot, and the smallest arteries of the scalp were throbbing with much violence ; pulse compressible, but extremely irregular ; eye-balls turned upwards and in constant motion. This pulsation was synchronous with the pulsation of the arteries in all their irregularities. He moaned, champed-his teeth, and slimy froth issued from his mouth ; he was perfectly insensible and incapable of articulating. We bled him again to the amount of twenty ounces ; ordered salts, hot sinapisms to his feet, and cold applications to the head.

Upon comparing the information which we now gained with that which he had given to the physician who prescribed for him in the morning, we found that there had been considerable aberration of mind. He had misstated his age, residence, and complaint. We also learnt, that for three days he had suffered most severely with cephalalgia, and violent cough and dyspnœa.

29th. Returning sensibility was first perceived a short time after the application of the sinapisms ; the salts had been taken, but without effect ; head cooler ; a few convulsions through the night ; he had articulated and recognised his friends ; restless and moaning ; skin and tongue cool ; pulse small and irregular. Ordered emp. lyttæ to the spine, sulph. sodæ, ℥ij. fol. sennæ, ʒij. At 1 o'clock, we saw him again. Had had no convulsions ; head cooler ; pulsation of its arteries less sensible ; comprehended what was addressed to him. As the senna had not operated, ordered ol. crot. tig. gtt. v.

30th. The bowels had been operated upon freely ; no return of convulsions ; pulse remains irregular ; scalp cool and forehead moist ; throbbing has ceased ; tongue a little coated ; was rational and had enjoyed a little sleep ; complains of cough and soreness within the chest. Emp. lyttæ on the

breast, aq. ammon. acet. ℥viij. c. ant. tart. gr. ij. a table-spoonful every hour.

31st. Had rested through the night; felt well, with exception of the cough, which had become more troublesome; expectoration viscid; no symptoms of cerebral disorder remaining.

November 1st. No alteration.

2d. Delirious through the night, fancying himself in danger of falling ice, timber, &c.; inability to sleep. In conversing with him we discovered no evidence of mental derangement; indeed he was perfectly consistent in his conversation; his whole appearance contradicted any suspicion of derangement. It was only when left to himself, or when he closed his eyes in attempting to sleep that he became affected with a fear of fancied dangers. He complained particularly of a sense of apparent expansion and elevation of objects. Pulse irregular and small; skin and secretions natural; tongue pale, cold, and clean; obtuse pain and throbbing over the eyes. *Tinct. lupulini*, ℥ss. *every hour*. Saw him in the evening. The lupulin had produced no other effect than that of quieting the cough and in removing, in a slight degree, the throbbing pain over the eyes. *Pulv. Doveri, gr.* x. *every hour* until he should become calm and quiet.

3d. Fell asleep early this morning; no derangement; pain and throbbing have entirely ceased; cough free; pulse stronger but very irregular. *R. lup.* ℥iv. *c. ant. tart. gr.* iv. a table-spoonful every two hours.

4th. Sleeps soundly and with much refreshment; pulse as heretofore; appetite good, and secretions natural.

6th. Discharged.

Although attempts to simplify diseases are at all times desirable, still a too great disposition for generalizing may frequently prove an obstacle to professional improvement. It is in this light that we view Dr. Good's rejection of arachnitis from his nosological arrangement. In this, however, he is only a follower of Cullen and other writers. Cullen is averse to the distinction between inflammation of the substance and

membranes of the brain; because, as he affirms, it does not "seem to be confirmed by observation and dissection." But he had neither seen the general improvement in pathology nor the particular addition to that portion of medical science, drawn from the *necrotomic* investigations of Lallemand and other French writers. It only requires a perusal of the result of their labours to be convinced both of the incorrectness of Cullen's remarks and of Good's assertion, that this distinction cannot be supported by any "*pathognomic symptoms.*" Among the many cases given by Lallemand, Duchatelet, and Martinet, one symptom is to be remarked as having always attended where dissection has afterwards shown the greatest lesion of the arachnoid—this is the epilepti-form convulsion. "Convulsions," say the latter authors, "are one of the most characteristic signs of arachnitis." In one third of the whole number of cases, which fell under their notice, these took place. This symptom, so prominent in our case, if it has ever been observed as occurring, has never, we believe, been placed among the characteristics of inflammation of the cerebral parenchyma. It may occur however, we have no doubt, even in this case, but such a fact we think would be a strong indication that, with such inflammation, the arachnoid was either primarily or consecutively implicated. That structures so contiguous should, when diseased, affect each other; or that some of their symptoms should be, as they often are, concomitant, does not appear singular; still the distinguishable characters may be considered, at least, as satisfactory as in inflammation of the lungs and liver, and their proper membranes; yet, in the latter case, it has been thought neither idle or useless to mark the peculiar characters of each. That this distinction leads to any important difference in the curative means employed, we think, may be doubted; but the discrimination between the two localities of the inflammation we believe to be desirable, and calculated to add to an intimate knowledge of an organ of so much importance that its slightest deviation from a healthy action has not only an immediate effect upon our moral feelings and sensitive faculties, but pro-

duces also important derangements in numerous other parts of our intricate system.*

Among the *Remittents* a few troublesome cases have occurred, owing to their being complicated with an harassing dry cough. There was no pain in the chest—no symptom evidencing acute inflammation. The fever, in other respects, was of a simple sub-acute character, but tedious and requiring much patience in procuring convalescence. Medicine in these cases seemed to have but little effect, the disease appearing to run through a certain course of its own.

Variola.—This disease has again made its appearance in this city. Its victims are chiefly among the lowest class, and under the circumstances always attendant upon their mode of living it has generally assumed its worse form. The cases of varoloid have not been as common as during its former visitation; and those which have occurred, have been in almost every instance of a mild character, requiring scarcely any medicine but acidulated drinks.

We may here notice a new instrument for vaccinating, which has been used in this institution. The name of the inventor we do not recollect. It is a small canula, with an extremely sharp pen-shaped extremity. The virus is introduced in this; the instrument is then passed under the skin, and by pressing upon a stilet within this canula the matter is inserted. The advantages, besides many minor ones of convenience, &c. are the certainty, despatch, and neatness with which the operation is performed. From the extensive trials made with it at the Dispensary, we have found a decided advantage, not only in the mechanical part of vaccinating, but particularly in the perfection of the pustule, over the old inconvenient and uncertain mode of scarifying with a lancet, and applying the virus externally by means of a "point."

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* Note.—Since writing the above we have accidentally seen the subject of this case. He has occasionally throbbing of his temporals, and is much troubled with dyspnœa; his pulse is most singularly irregular, both as to its quickness and strength; his countenance has something peculiar in it—a wildness and restlessness of the eye; with these he has palpitation of the heart. We examined him with the stethoscope, but distinguished only the *rale;* but as we are not perfectly conversant with its use, we consider the examination as unsatisfactory.

REVIEW.

ART. I. *A Letter to the Hon. Isaac Parker, Chief Justice of the Supreme Court of the State of Massachusetts, containing Remarks on the Dislocation of the Hip-joint, occasioned by the publication of a Trial, which took place at Machias, in the State of Maine, June* 1824. By JOHN C. WARREN, M.D. Professor of Anatomy and Surgery in Harvard University, and acting Surgeon in the Massachusetts General Hospital. *With an Appendix of Documents from the Trial necessary to illustrate the history of the case.* Cambridge, (Mass.) 1826. 8vo. pp. 142.

PROFESSOR Warren bears a name that is dear to us as Americans. His education has been among the most finished in our profession, and, at an early period of his life, he was called to the responsible situation which he now holds in the medical department of Harvard University. Anatomy and Surgery, as might naturally be supposed, have formed his peculiar study, and it is certainly not too much to say, that, on these subjects, his opinion is deserving of high respect and mature consideration.

These preliminary observations are necessary to introduce the narrative contained in the publication, whose title we have given above. The feelings that have induced its appearance, are, of course, in a degree personal; but we are greatly mistaken, if it does not present many points of deep interest to the profession and the public.

In December, 1821, Dr. Warren was called to visit a stranger (Mr. Lowell) at a public house in Boston.

"He informed me" (says Dr. Warren) "that he had received a severe injury in the hip, and had travelled a considerable distance for the purpose of obtaining surgical aid. His account of his misfortune was as follows:

He was riding a spirited horse, when the animal, being restiff, suddenly reared and fell backward on his rider. The weight of the horse was received on the inside of the left thigh, the patient having fallen on his back, a little inclined, as he said, to the left side. When he attempted to rise, he found himself crippled, and had continued so from that time."

Our author proceeded to examine the nature of the injury, and finding it peculiar and difficult, he repeated the examination on the succeeding day. The result of his investigation was, that there was a *dislocation of the thigh backwards and downwards.*

On informing the patient of his opinion "the information did not seem, as I expected it would, to surprise him, for, having heard my opinion, he proceeded to state, that he had, in the beginning, supposed the limb to be put out; that he had applied to surgical practitioners in his vicinity, and had been operated on for a dislocated hip; that the bone was supposed to have been restored to its proper place; and that he himself thought so, till he got up and began to try his limb, when he found it in a crippled state, and was, after a time, led to believe that it had never been reduced to its proper situation. He did not, as well as I can remember, name the practitioners to whom he had applied, nor did I hear their names till a long time after." p. 3.

Mr. Lowell inquired, whether any relief could be given; and in reply to the natural answer, that dislocations of the thigh-bone are very difficult to be reduced even when recent, and that the probability of success was greatly diminished, both on account of the time that had elapsed (it was dislocated in September) and the peculiar nature of the injury, urged that some attempt should be made. He was willing to suffer any thing to get the use of his limbs. "I am young," he said, "and depend on my bodily exertions for my living. I am ready to run some risk of my life for the chance of getting the use of my limbs again."

Not having the proper accommodations and apparatus at the public coffee-house, Dr. Warren advised Mr. Lowell to go to the Massachusetts General Hospital, where every thing requisite would be amply supplied. To this he consented, and previous to undertaking the operation, Dr. Warren called a meeting of the consulting medical officers. Four of these attended—Drs. Townsend, Mann, Walsh, and Spooner. They

examined the patient in the absence of Dr. Warren, and came "to a decided conclusion, that the limb was misplaced; and as to its restoration, they were equally well satisfied that it was highly improbable, if not impossible." It was at the same time agreed, that if Mr. Lowell, with the knowledge of all this, should still persist in desiring the operation, it would be expedient to perform it. They were satisfied that he must be maimed for life, if he remained in his present condition; while, on the other hand, a *chance* existed of a successful reduction.

The opinion was communicated to Mr. L. It produced no change in his resolution, and Dr. Warren, therefore, made the necessary arrangements. A purgative was premised. The warm bath was used, and small doses of tartar emetic were given, in the way suggested by Sir Astley Cooper, so as to produce that sickness which relaxes the muscular system; and finally, at the moment when the apparatus was to be applied, a vein was opened and blood drawn as rapidly and in as large quantity as the faintness of the patient would allow. Pullies were applied to produce the necessary exertion, and force used in every mode that was deemed consistent with his safety. The patient bore it manfully, without complaining. But after continuing this for an hour or more, without effect, both Dr. Warren and the consulting physicians were of opinion, that the reduction was impracticable, and agreed to a discontinuance of the operation.

In a day or two Mr. Lowell was well enough to leave the Hospital. He afterwards applied to two surgeons in succession, who each attempted the reduction without success.

We must now notice the early history of this case. Immediately, on receiving the injury in the manner already related, a physician (*Dr. K.* as Dr. Warren designates him) was called, who declared that the hip was dislocated. He attempted the reduction, but without success. In a few hours, another physician (*Dr. J.*), who had been sent for, arrived. He also examined the part, had a private conference with Dr. K., and then stated, that the hip was out, and the socket which received the thigh bone was fractured. Another operation was agreed upon, and after some time Mr. Lowell declared that

he felt the bone go into its place and was freer from pain. The injured limb was turned in various directions by the operators with ease, and they declared the bone set. On the fourth and fifth days thereafter, the patient suffered much pain. Dr. J. was again sent for, but does not appear to have arrived until more than a week had elapsed. Mr. Lowell pointed out to him a hollow in his hip, which was very apparent. The reply was, that this was a natural consequence, and when Mr. L. gained strength it would fill up. On the 23d of October (the fourth visit) it was discovered that there was a material difference in the length of the limbs. Dr. J. observed, that either it looked as if it was not set or was not in its place, and promised, at some future day, to call and make a thorough examination. On the 19th of November he came, but it is not stated what he did. These facts, it must be observed, are taken from the depositions of unprofessional witnesses.

We do not find any occurrence noted from this period until the time when Mr. Lowell consulted Dr. Warren at Boston; and, therefore, resume the narrative as given by the latter gentleman.

Some time after the unsuccessful attempts at reduction, both in the Massachusetts Hospital and by different surgeons, Dr. W. met the patient in the street, and was accosted by him.

"He informed me, that he was about to return home; that he had thoughts of instituting a suit against the physician and surgeon who were first called to him, and that he should be glad to have from me a statement of the case. On hearing of this intention, I immediately remonstrated with Mr. Lowell. I told him, that he ought not to blame his medical attendants, for his case was one of difficulty; that they had done the best they could for him; and that if he trusted any medical man, the responsibility must rest with himself, for, if he had not confidence, he should not have employed the individual. To this he replied, that he would not desire to bring an action against the surgeon, had he done the best he could; but that he thought himself grossly neglected; that when he first suspected his limb had not been reduced, as it was thought to be, he sent for the surgeon, and was not able to obtain his attendance till a number of days afterwards; that when he did come, he acknowledged things were not right, but left him without making any attempt to rectify the difficulty, and that he was, in consequence, a cripple for life. He thought he was entitled to compensation for the injury he had suffered in being thus neglected. My

answer was, that there were probably circumstances connected with this apparent neglect not fully understood, and which would give a different aspect to the case; that certainly I was of opinion he could not expect to recover damages in such a case; and, therefore, strongly advised and hoped he would lay aside all thoughts of a lawsuit, and must excuse myself from giving a statement, in any manner interfering further in the affair. With this we parted, and I believed that what I had said to him would influence him to abandon the project of a prosecution." pp. 10, 11.

Mr. Lowell, however, after a considerable interval, commenced a suit against the surgeon and physician first called to administer to him. He obtained a verdict with 1900 dollars damages. A second trial however, and even a third ensued, (the manner in which these were obtained is not explained.) In the former, the verdict was again for him, damages 100 dollars; while, in the last, the jury could not agree, "except in acquitting the physician first called; and one of the jurors being unable to attend longer, on account of ill health, the parties agreed to withdraw, without costs on either side. The result of this last trial was, therefore, in fact favourable to the defendant."

Previous to the occurrence of the third trial, Dr. Warren was visited by the plaintiff, for the purpose of obtaining his deposition to the facts that had come within his knowledge. It was in vain for him to decline this. He was legally summoned, and compelled to give his testimony. His answers to the interrogatories are contained in the Appendix, and their substance is very fairly and accurately given by the author as follows:

"That I did at a certain time attempt to reduce the dislocated limb of the plaintiff in conjunction with other physicians and surgeons named;—that the reasons for believing the existence of a dislocation in this case were, the unnatural position of the limb, its elongation, the accompanying contraction of the thigh and leg, the displacement of the trochanter, the displacement of the head of the thigh bone, its appearance in an unnatural situation in or near the ischiatic notch, the inability to use the limb in the ordinary manner, and the consequent necessity of extraordinary and constrained movements;—that manual force might succeed, sometimes, in reducing dislocations of the hip-joint, and that when this failed mechanical means must be employed;—that the elongation of a disordered limb might be produced to some extent, by simple relaxation of the muscles, or by relaxation

of muscles accompanied with fracture of the bone;—further, that the thigh bone, after being reduced, might be thrown out again, by the application of considerable force, or by movements of considerable extent, but not otherwise;—that a surgeon, who employs the best means in his power, ought not to be responsible in damages;—that a surgeon who has opportunity to examine a case of dislocation immediately after the injury, other circumstances being equal, has better means of judging of the nature of the case than one who examines several months after;—that the case in question, though not without its difficulties, appeared to me to be one, in regard to which men of high standing in the profession would not differ." —p. 17.

Similar interrogatories were also submitted to three of the consulting physicians, and their answers coincided, generally, with those of our author.

This, then, is the history of the case so far as it relates to Dr. Warren. We stop to inquire, whether there is any thing in his conduct unprofessional, unkind, indecorous, or unbecoming the character of a gentleman? We think not. But we regret to add, that the treatment he has received deserves even harsher terms than those we have used. It seems not to have been sufficient to obtain a verdict against the plaintiff, to leave him a helpless, ruined man on the community, but from motives, which we do not wish to scrutinize, a celebrity, distinct from its local excitement, has been given to the case by the publication of the speech of the defendants' counsel. We are furnished with extracts only from this production, but we presume they are fair specimens of the whole, and an opinion may readily be formed of its character when we state, that the operation for reducing the injury, at the Massachusetts General Hospital, is compared to the agonies of Damiens, the assassin of Louis XV. This wretched man, our readers will recollect, was torn limb from limb by four young horses. The hospital itself, the medical faculty of Harvard University, all fall under the weight of his mighty indignation. He denies that any dislocation was present—calls the reasons assigned by Dr. Warren, and the consulting physicians for their opinion, a perfect fallacy—opposed to the most obvious principles of anatomy—and stiles the conclusion drawn by them, "a hallucination of the most extraordinary character itself—

such as could hardly have been expected of a surgeon of three months standing—"

On the trial several medical practitioners (one of whom is designated as "of high standing in the profession") gave it as their opinion that no dislocation was present.

These opinions and this publication have induced Dr. Warren to appear before the public. The remainder of his letter is occupied in discussing two questions.

1. The existence of a dislocation in the case of Mr. Lowell.

2. Its peculiar nature, and whether, according to the authority of Sir Astley Cooper, the kind supposed to have been here present is impossible?

One of the physicians examined Mr. Lowell six months after Dr. Warren and his colleagues, and gave it as his opinion, under oath at the trial, that no dislocation did then exist, and he moreover intimated that none had ever existed. He objected, that the manner in which the accident happened was such as to render it scarcely possible that the hip should be dislocated. "A fall on the hip, with the weight of a horse upon it, would be likely to break the bones of the pelvis, and might drive the head of the bone through the bottom of the socket, but could not dislocate the joint; and in my opinion, (he says,) if there is any derangement of the bones, it is a fracture and not a dislocation." The reply to this, by Dr. Warren, is one which we should suppose must call up a blush on the check of this "physician of high standing." "Mr. Lowell informed me and others, that he fell on his back; and Reynolds, the only witness of the circumstances of the fall, swears positively to the same effect." This physician also ventured an opinion of some novelty in surgical practice. "I should not think that a hip-joint, having been out of place six or even eight weeks, would render it impossible to reduce it. It might even be a *more favourable time* for the operation than immediately after the accident, especially if the soft parts were much bruised and swollen."

Another physician was present, with the professional gentleman we have just noticed, at the examination of Mr. Lowell. He was of opinion, that the injury did not arise from disloca-

tion at present existing, but from affection of the muscles, or *some other cause!* The remaining medical men (two in number) considered the case to be injury or fracture of the bones of the pelvis. Yet neither of these, according to the positive assertion of Mr. Lowell, (page 33), ever examined him.

Dr. Warren now enters into an interesting surgical discussion as to the symptoms of dislocation of the hip-joint—corroborating and illustrating his remarks by quotations from the most approved writers on the subject, such as Boyer, Samuel Cooper, and Mr. Wilson, the late eminent anatomical teacher in Windmill-street, London. Having shown, that all the marks mentioned by them were present in the case, he next inquires, how far these are applicable to the other injuries supposed to have existed by the medical witnesses of the defendants? In fracture of the bones of the pelvis (always a dangerous occurrence) the limb is shortened, the axis of the limb is not changed, the power of moving the limb is increased, the muscles are shortened and relaxed, and there is a grating of the fractured pieces of bones on each other. None of these were present in Mr. Lowell. As to the idea of contraction and relaxation of the muscles, producing so permanent and striking an effect, we can hardly believe any person versed in the subject can for a moment entertain it.

The positive testimony in favour of a dislocation actually existing, is the opinion of Dr. Warren and his four colleagues, Dr. Benj. Brown of Waldoborough, and Dr. Eastalrook, all of whom particularly and minutely examined the patient at different times.

Much stress appears to have been laid on the impossibility of the occurrence of a dislocation downwards and backwards, because Sir Astley Cooper did not (as was stated) believe that such a species of dislocation could exist. The expressions used by that eminent surgeon are, however, far from warranting so broad an assertion.

"A dislocation backwards and downwards has been described by some surgeons who have had opportunities for observation, but I have to remark, that no dislocation of that description has occurred in St. Thomas' or Guy's Hospitals for the last thirty years, or in my private practice, and I doubt its

existence, though *I would not deny the possibility of its occurrence*, but am disposed to believe some mistake has arisen on the subject."

In a subsequent page the same remark is repeated, with the following additions and explanations.

"If such a case does ever occur, it must be extremely rare. I cannot help thinking that some anatomical error must have given rise to this opinion, as in the dislocation downwards and backwards the head of the bone is described as being received still into the ischiatic notch; but this notch is, in the natural position of the pelvis, above the level of the line drawn through the middle of the acetabulum; and thence it is, that the leg is shorter, not longer, where the bone is dislocated into the ischiatic notch.' Page 77.

The explanation given by Dr. Warren, of this *anatomical mistake* deserves the attentive perusal of every surgeon, and we regret that our limits will only permit us to glance at his most satisfactory elucidation. Several plates are given, illustrative of the various species of dislocation; and a minute description of the parts concerned is followed by extracts from the works of Soemmering, Boyer, and Mechel, showing that they describe two ischiatic notches—the superior, or great—and the inferior, or little.

"Sir Astley Cooper alluded to what we call the *upper part* of the ischiatic notch—what Boyer and the French anatomists generally have described to be the upper part—what Soemmering names the superior ischiatic notch—or, if rightly denominated, the *iliac* notch That which Sir Astley calls the ischiatic notch, is really above the socket; but what the continental anatomists so name, extends both above and behind. A dislocation in the upper part of it is above the socket, and the limb is shortened; a dislocation in the lower part, or on the surrounding bone, is below the socket, and in such, the limb would be shortened." p. 78.

Extracts are now given from the writings of several eminent surgeons, showing, that they believe in the existence of the species of dislocation in question. They are from William Lawrence (in Rees' Cyclopedia)—Richerand—Leveille, author of the systematic work called "New Surgical Doctrine"—Delpech, the present professor of surgery at Montpelier—the late Dr. Dorsey, in his System of Surgery—and finally, from the late work of Lisfranc.

Whether the arguments used and the authorities quoted by Dr. Warren, are sufficient to establish the correctness of his treatment and his opinions, is not with us a question. It requires, we fancy, more surgical talent than was evinced either by the defendants or their witnesses to overthrow the mass of evidence that is collected in this work. We cannot, however, conclude our notice of it without indicating some points for reflection: and the first to which we beg leave to advert, is the conduct of the legal profession in their treatment of medical witnesses on trials. We are free to allow that the present is an extreme case. We are willing to admit that few advocates could be found to use such language as is here given in the Appendix, condemning Dr. Warren and his colleagues; but we must, at the same time, state the fact, as an undoubted one, that too much latitude is generally allowed and taken with medical character. There may be (and we are sorry to say it) individuals whose ignorance or presumption deserve rebuke; but even these hardly require to be denounced—blackened—ruined. And yet there is scarcely a case, that we have seen reported for many years, in which a great freedom of speech is not permitted concerning the talents and medical standing of individuals; their observations are perverted, and it has happened that some advocates have even given their medical information (magnificently great as it must be) a preference over that of aged practitioners, who unfortunately happen to testify on the opposite side.

On the other hand, it is a matter of astonishment how, with these facts full before them, physicians appear so desirous to rush into courts of justice to give their testimony. Can the little temporary eclat of relating a dissection—of explaining their treatment in an uncommon case—or of enumerating their experiments,—compensate for the sneers, the jibes, the calumnies, of an advocate, whose faculties are sharpened to detect the slightest errors,—and who, if he cannot find, will make them? But it is too true, that he generally does find them. Look at the case before us, and observe the lamentable looseness of testimony as *to facts* in one of the defendants' witnesses, and the boldness of assertion in the others. We

commend such witnesses to the lawyers we have above noticed; but we desire that the latter will not insult honourable men, who are forced by legal process to give an unwilling testimony.

Judges, too, sometimes fancy their knowledge of medical matters very profound. In this case the bench appears to have quoted Sir Astley Cooper with great readiness; and in his address to the jury, insists much on the opinion of that surgeon. We do not object to this; but we think he should have looked to it to quote accurately. (See p. 109.)

Judges have sometimes a most delicate part to act, viz.—to discriminate between the knowledge and acquirements of various medical witnesses. We have known one to say to the jury—Dr. A. is a profound chemist—his opinion is to be perfectly relied on; (and by implication, of course, those of a different one were not); while the testimony of this same chemist would not have stood the scrutiny of a student who had paid tolerable attention during a single course of lectures.

The remedy for these evils has been already hinted at in a former number. Let a set of men be particularly educated as examiners in medical cases—and, of course, as witnesses. The facts will thus be settled; and their qualifications will give force to their opinions. If any are disposed to question these, the grounds for discussion are laid out, and the differences can be understood. In this way, also, these examiners become vested with a sort of legal function, which may occasionally serve to enlighten the bench.

ART. II. ***A Review of the Diseases of Dutchess County, from*** 1809 ***to*** 1825***; being the subject of two Addresses, read before the Medical Society, at their annual meetings in*** 1819 ***and*** 1825. ***Also, an Essay on a Disease of the Jaw Bones. To which is added, an Appendix, containing Notes and Elucidations.*** By HUNTING SHERRILL, late President of the Dutchess County Medical Society. New-York, 1826. 8vo, pp. 184.

THE history of disease has probably received a greater share of the attention of physicians in this country, and been more successfully cultivated by them, than any other branch of medical learning. The writings of all our distinguished authors, and almost every number of our successive and numerous periodical publications, might be safely appealed to in confirmation of this fact. Such an appeal would, at the same time, afford ample and gratifying opportunities of observing the rich and important contributions rendered by our countrymen to medical knowledge; and if the observation of the illustrious Sydenham be not founded in error, that the improvement of physic depends upon collecting a genuine and natural description or history of all diseases that can be procured, and laying down a fixed and complete method of cure, entitle them to a pre-eminent rank among the zealous promoters of science and the effective benefactors of mankind. In claiming thus much for American physicians, we trust we shall not be suspected of a disposition to indulge in idle national vanity. Our object in introducing these remarks is widely different, more elevated, and, we trust, more useful. It is, on the one hand, to remind our professional brethren of the causes which have hitherto led to this direction of the medical mind of the country, and which still continue to stimulate their inquiry, and elicit their talents and industry; and, on the other, to offer a few observations on the best method to be pursued in the important investigations of the causes, nature, and treatment of disease. Difficulties beset the task, and but a very limited scope is afforded in these pages even to its partial accomplishment; but its importance will secure indulgence to our attempt.

I. 1. Extending from the twenty-fifth to the forty-seventh degree of north latitude in length, and from the Atlantic to the Pacific oceans in width, the United States comprehend every possible diversity of climate and situation. To the tropical heats of the southern states may be opposed the arctic cold of the northern, and to the moist and variable atmosphere of the maritime coasts the equable and dry of the interior and mountainous regions. Independently of these more general features of difference, there exists every variety of locality which topographical situation can confer—hills, valleys, and plains—sterile wastes and fertile tracts—sandy deserts and marshy swamps—large rivers and ocean-like lakes—together with all the minor shades of character arising from the peculiarities of vegetable and animal productions accommodated to individual regions.

Endowed to a certain extent with the power of resisting external agencies, and enabled by reason and experience to prevent and remedy their evil effects, man is nevertheless sensibly affected by them, and sooner or later becomes moulded in his moral, no less than his physical features, by the impressions of climate. An attentive view of the condition of the inhabitants of this country will fully illustrate this fact, and lead to an important step in the investigation of their diseases.—The northern and eastern inhabitants of our empire will be found to differ essentially from their brethren of the south and west; and although this difference has not yet had time to reach its maximum, on account of the too recent settlement of the country, it is sufficiently striking to arrest attention. If it be not, however, palpable during health, it is most amply developed in the hour of disease. The inflammatory and acute diseases, which prevail in elevated, dry, and cold situations, are forthwith exchanged on a removal to low, moist, and warm places, for low and chronic affections; fevers, attended by the diseases of the chest, for those in which the abdominal viscera are implicated; and emigration from the sea-coast to the interior, removes, in a great degree, the liability to that fatal scourge of the Atlantic states—consumption. How great a variety of morbid phenomena must occur under all these

aspects of differing seasons, climates, and situations, is sufficiently apparent; and to this circumstance we may safely attribute, in part, the numerous and interesting histories of disease with which the medical annals of our country are enriched, and which have tended in no small degree to enlarge our knowledge of the relations subsisting between diseases and their more general and pervading causes. This circumstance still continues to operate, and as much remains to be done, it will open to the medical inquirer an unbounded field for observation and reflection.

2. The political history and condition of the United States have exercised an important influence over the habits of the people, and consequently cannot have failed to modify the features of their diseases. The more immediate effects of the revolutionary war, and of the freedom which it so dearly bought and permanently secured, have been recorded in an interesting memoir, written by Dr. Rush, himself an active and zealous participator in the important events which led to the termination of the one and the achievement of the other, and an acute observer of their influence over the minds and fortunes of his fellow-citizens.* If the stimulus of novelty, which operated so powerfully in the early periods of our history, has ceased to act, the invigorating influence of a sense of freedom continues still to put forth and display its healthful energies. The general diffusion of knowledge, the intelligence, the elevated tone of morality, the salutary restraints of religion, and the love of country—the mental and bodily activity, the ardent and indomitable spirit of enterprise, every where aroused and nurtured by the incitements of political, scientific, or literary ambition—by the desire of wealth, and the characteristic abhorrence of dependence—all combine to exert a powerful agency in moulding the temperaments, constitutions, and manners of our citizens. And it is scarcely necessary to point out the inseparable connexion which unites these moral agents with the causes and peculiar characters of the diseases of a people. While we enumerate the favourable

* See Rush's Inquiries and Observations, vol. 1.

constituents of our national character, let us not altogether overlook the unfavourable ingredients which unite with them and bring us to a level with all humanity, a mixture of good and evil. A spirit of licentiousness—the indulgence of malignant passions, and too great a fondness for excesses, especially in the use of spirituous liquors, are among the prominent vices, from the charge of which certain districts, more especially cannot be altogether exonerated. That they are peculiar to our form of government, or inseparable from our condition, in other respects so enviable and unparalleled, we do not believe, and are not in this place permitted to inquire. They are here exposed, with the simple view of citing their modifying influences upon the diseases incident to our countrymen.

3. Another important agent in modifying the diseases of the United States, is the mixture of different varieties of the human species, which long-continued and extensive emigrations from remote countries have here brought together in the anxious search for repose and happiness. The sanguine temperament of the northern nations of Europe has amalgamated itself with the bilious constitutions of the southern, and both have not disdained to mingle their currents with the lymphatic or phlegmatic disposition of the Hollander, engendered in fogs and 'dull as his lake that slumbers in the storm.' The diseases peculiar to each one of these distinct varieties become, of consequence, subjected to great and frequently entire alterations in their nature and modes of treatment, presenting novel phenomena and indications, and requiring in the physician skill bold and original.

4. A fourth circumstance to be considered in the history of the diseases of this country, is the more or less recent period in which particular districts were first settled. All the gradations between the most simple and the most refined conditions of life, from the first faint dawn of civilization to the meridian splendour of luxury, may be discovered in glancing over the different portions of the union—here resembling the oldest and most wealthy regions of Europe—there approximating to the rude haunts of the helpless and uninstructed savage.

The important influences of these different states of being on the moral and physical character of man, have long been the subject of philosophical investigation, and their power in modifying the phenomena of diseases will not be disputed. In connexion with this subject that of emigration, as affecting health, will not be lost sight of.

5. To the causes already enumerated, as offering particular stimuli to the investigations of the medical philosopher, in this country the prevalence of the fearful epidemic, known by the title of yellow fever, deserves to be added. Few subjects have ever presented such unbounded limits for inquiry, and awakened such undiminished ardor for discussion and discovery as this. Arrayed in a most awful form of malignity and destruction, setting ordinary skill at utter defiance, and laughing to scorn the antiquated prejudices of the schools and the prescriptive laws of an inadequate and inapplicable police, this monster every where awakened the spirit of curiosity, and provoked intellect and industry to a zealous but patient investigation. Reformation in our medical theories, a bold and original practice, and a host of illustrious names, at the head of which let us gratefully remember that of Rush, have been the fruits of this contest and of the labours to which it gave rise.

Such are some of the leading circumstances which have influenced the direction medical literature has pursued in the United States, and their continued agency warrants the anticipation of still wider harvests of accession to science, and of renown to the fortunate labourers.

II. When Hippocrates was asked, who is the physician that is an honour to his profession? his reply was—"He who has merited the esteem and confidence of the public, by profound knowledge, long experience, consummate integrity; who has been led through the whole circle of the sciences; who has a due regard to the seasons of the year, and the diseases which they are observed to produce, to the states of the wind peculiar to each country, and the qualities of its waters; who marks carefully the localities of towns and of the surrounding country, whether they are low or high, hot or cold, damp

or dry; who, moreover, neglects not to remark the diet and regimen of the inhabitants, and, in a word, all the causes that may produce disorder in the animal economy. Simple as these requisites to the formation of a skilful physican may appear, they are not to be attained but by an exquisite discernment, a sound judgment, and the most unwearied industry; and where these are possessed, it is gratifying to know that they are, in general, accompanied by that liberal spirit, and that honourable love of distinction, which incite the possessor not to rest satisfied with hoarding up for his private use the accessions he makes to knowledge, but to communicate them to the world for the benefit of his contemporaries and of those who may succeed them. In the present age, and in the medical profession, this desire of communicating knowledge burns with an intensity of ardor that requires direction rather than incentive. There is, in fact, far greater inconvenience to be apprehended from the cacoethes scribendi, to which we owe the unnecessary multiplication of books, than from the grovelling passions which confine knowledge within the limited sphere of the owner's breast. In this country, where so many causes incite to authorship, we have, accordingly, no reason to complain of the want of *new books.* Within the last few years, more especially, our shelves have been literally crowded with text books, either original, compiled, or foreign, enriched with additions for domestic use, with histories of diseases that have appeared in particular districts of our country, and with novel theories of fever innumerable. To the second class of writings our attention has always been carefully directed; and however unequal we may have found the productions, we always consider ourselves amply repaid by the local information they convey. It has too often happened, however, and we regret to repeat the complaint in the instance of the little work whose title stands at the head of this article, that authors, while writing expressly descriptions of endemic diseases, neglect to make their readers acquainted with those important topographical details, without which their histories

are both unsatisfactory and void of interest. To obviate this deficiency is one object in these remarks and those which follow; and we shall, therefore, be pardoned if we dwell, perhaps tediously, on what may be considered common places.

To render descriptions of endemic or epidemic disease a valuable accession to medical knowledge, the rules of Hippocrates, already quoted, must be carefully adverted to. A short amplification of some of them, and the enumeration of others, will point out their importance.

1. *Celestial and terrestrial phenomena.* The appearance of comets and meteors, the periodical revolutions of the planets and their satellites, that of the moon more especially, the eruptions of volcanoes, the convulsions of earthquakes, violent tempests, and extraordinary seasons, have all been supposed to have a direct influence in the production and diffusion of epidemic diseases. Whether or not this hypothesis be founded in truth, the numerous facts which have been collected by the industry and research of our countryman, Webster, go far to show that there is an intimate association between the occurrence of these phenomena and that of epidemics, and they deserve, therefore, a place in the records of every medical inquirer.

2. *The sensible qualities of the atmosphere.* The essential constituents of the air we breathe, as oxygen, nitrogen, and carbonic acid, are uniformly found, at all times and in all places, to exist in the same definite proportions. Even the air of marshes has been found by repeated experiments made by several distinguished physicians, and more recently repeated sixty times by professor Julia of Lyons, not to differ from atmospheric air in any principle of which chemical analysis can discover the existence. It is then to the adventitious principles which combine with the atmosphere, such as light, caloric, electricity, and aqueous vapour, that we must look for the causes of disease. The innumerable variations these elements are constantly undergoing, must inevitably exert a more or less powerful agency on the health and lives of animated beings, and therefore form a prominent subject for examination.

a. The influence of light upon the animal economy has not yet received all the attention to which it is entitled. The general health of man, it has however been justly observed by Dr. Parr, one of the most learned physicians of our age, is apparently connected with light; and "the peculiar acid of the animal system, the phosphoric, has a powerful attraction for this element, and appears to contain it, not only in a chemical combination, but, when in the form of an oxide, unites with and allows it to separate without decomposition."* Certain it is, that the complexion of a man, long confined in darkness, becomes sallow, his skin liable to foul exulcerations, and his whole system languid and not unfrequently dropsical. The consequences of long continued and intense light, emitted from the unclouded sun in Egypt and other similar situations, are well known.

b. Heat and cold exercise an influence not to be disputed in the production of disease, and their relative degrees deserve, on this account, to be accurately noted. The tropics and the north of Europe are proverbially subject to the inroads of wide and devastating epidemics. The thermometer should be an indispensable part of the domestic furniture of a physician who resides in the country.

c. The opposite states of humidity and dryness in the atmosphere are not to be overlooked. Moisture, if not directly unpropitious to health, forms, nevertheless, a most ready vehicle for such poisonous substances as directly cause disease; and dryness long continued, especially in hot climates and in hot seasons of temperate climates, has been known, from the days of Hippocrates, to produce the most deleterious effects. The operation of *rains*, in changing the character of particular districts for salubrity, will be sufficiently obvious.

d. The density and rarity of the atmosphere, and the prevalence of particular winds, will also deserve notice.

3. Next to the qualities of the air come to be considered *those of the soil, its geological history, and the chemical com-*

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* Parr's Medical Dictionary, artiele *Lumen.*

position of its waters—the general features of the country, whether it be hilly or low ground, fertile or barren, whether it contains marshes, and whether it is in proximity to the sea, &c.

4. The *botanical and zoological histories* of the region described are, on no account, to be omitted. No justifiable apology can be offered for a neglect of this important item at the present day, when the opportunities for the cultivation of natural history are so numerous, and a knowledge of it become an indispensable requisite of medical education.

5th and lastly. We ascend to man himself, and ascertain, as far as we can, his physical and intellectual condition. His bodily constitution and strength ; his habits, as respects diet and regimen ; his moral propensities and sensibilities, the energy of his thinking faculties as developed by his moral, political, and religious condition, will all tend to illustrate the etiology of the diseases to which he is subject, and explain the greater or less mortality of different portions of the earth. These subjects, it may be urged, are extensive and even difficult of investigation, but they are in proportion important and cannot escape the discrimination and perception of a skilful and observing physician. His previous liberal education, his acuteness and sagacity, cultivated by an intimacy with mankind in all the relations of life, his perseverance, lofty ambition of professional distinction, and an active and enlightened philanthropy, will smooth the path of labour and ensure value and success to his exertions. It may still be argued, that a knowledge of all these subjects has hitherto been found inadequate to the solution of the difficulties connected with the histories of disease. The fallacy of this argument will sufficientiy appear, when it is considered within how short a period true principles of medical logic have been cultivated, and the sciences, which chiefly aid the researches of physicians, as natural history, chemistry, physiology, &c. attained their present improved state.

Dr. Sherrill's book, which has betrayed us into these remarks, contains two addresses, exhibiting a very cursory ac-

count of the diseases which have prevailed in his neighbourhood during the last sixteen years. Deficient in the collateral observations, on the importance of which we have been expatiating, it is devoid of that interest which generally attaches to similar essays. This is the more to be regretted as it does not present us with any novel features of disease, nor suggest any improvements in practice. The language too is faulty, and frequently not free from inelegancies. Wishing, however, to preserve in our pages a record of all facts connected with the history of the diseases of our country, we shall present our readers with a brief analysis of Dr. Sherrill's account.

In 1809 Dr. S. commenced practice in Dutchess county, and he found fevers of the intermittent and remittent type very prevalent, and assuming, in autumn, a bilious character. These fevers, when early and properly treated, yielded, in general, on the fifth, seventh, or ninth day. Sometimes they were protracted to the third week. The same fevers continued to make their appearance in 1810 and 1811. In the last year they were attended with an obstinate cutaneous eruption, extending into blotches and sores, and seldom yielding, except to active mercurials externally, and alteratives internally. The treatment of the intermittent form of fever consisted of the usual course of evacuants and tonics. Anodynes and Fowler's solution are favourably spoken of. The latter was given with great safety and success to children. Blood-letting was also had recourse to in obstinate cases, as recommended by Dr. Rush.

Remittents were treated in a similar manner.

The *winter epidemic*, described by our author, is the disease now generally known by the name of pneumonia typhodes, and presented the same symptoms here as elsewhere. Agues and chills ushered in the disease; sometimes a great prostration of strength took place; violent pain in the chest; difficulty of breathing; pain in the head, back, &c.; nausea and bilious vomiting ensued; yellowness of eyes and skin, and occasionally dysenteric symptoms attended the disease. The tongue was white or tinged in the middle with yellow; its edges were of a lively red; yet, in some cases, it was per-

fectly natural. Cough was always present, when the chest was affected, and more or less expectoration. The heat of the skin frequently not increased, but rather diminished. The pulse is arranged by Dr. S. under six different heads: 1st, a slow pulse; 2d, an intermitting pulse; 3d, a depressed pulse; 4th, a frequent pulse—without tension, flowing like an elastic tube partially filled with liquid; 5th, a hobbling pulse; and 6th, a tense, full pulse. The fourth variety was the most common.

There was a disposition in the disease to assume the malignant type, particularly where evacuations were not early had recourse to. Dissections, after death, showed the lungs and the heart distended with blood, and quite engorged.

Treatment. Bleeding used with caution; an emetic, followed by a course of cathartic medicines, or sometimes an emetico-cathartic of calomel and tartarised antimony, in the commencement of the disease. Sudorifics and expectorants, with a pretty liberal quantity of calomel, in the progress; and finally, nourishment, cordials, stimulants, and tonics, constituted the method of cure. Small bleedings repeated, and the cold affusion, were occasionally employed with advantage.

In 1814, a febrile disease made its appearance, which had its origin with the militia who were encamped near the city of New-York, and presented some symptoms evidently to be traced to the inconveniencies of a military life.

In 1819, diseases of the throat and lungs were common, attended with a determination to the head. They were relieved by large bleedings and other active evacuations. Scarlet fever also made its appearance.

In 1820, dysentery attracts particular attention. This disease was treated by early blood letting, succeeded by emetics of ipecacuanha, or cathartics—of which calomel was a leading article.

Diaphoretics and anodynes were also serviceable. Astringents were employed as soon as the case would bear it; but harm resulted from their too early use. Fatal cases were in the proportion of one to twenty.

In recapitulating the diseases of 1821 Dr. Sherrill takes occasion to record the death of Dr. Samuel Bard, formerly President of the College of Physicians and Surgeons in this city, and a distinguished member of the medical profession in this country. We cheerfully give place to the following characteristic traits :

"As a physician, he had an active, discriminating mind and discerning judgment, well calculated to detect the intricate and obscure operations of morbid action, and to devise means to effect their removal. By his benevolent disposition, and perseverance in laudable undertakings, he perhaps did more for the advancement and cultivation of medical science than any of his cotemporary countrymen. Much is due to him for procuring the passage of the law by our Legislature, under the auspices of which we are this day assembled, and out of which has grown that advancing respectability of the medical character which, by the irradiating influence of science, has overawed, and almost obscured empiricism. Those who had an opportunity of meeting him within these walls, will readily bring to mind our then flourishing situation, when we were stimulated by his example, and edified by his maxims and his addresses. Although for many years retired from the city and from active business, he was not withdrawn from professional usefulness or benevolent purposes. He constantly, when required, gave counsel to those around him; and among the poor, sought out cases of sickness and want, on which to bestow gratuitous services. His wife, who was first attacked with the same disease, was his last patient, and he her last physician! He being soon attacked, was obliged to end his medical labours, and withdraw from her the day before she died—and in his turn became a patient. During his short illness, he displayed his usual vigour of mind and promptness of decision. He conversed with me and his friends, with calmness, on the nature of his disease and the approach of death. More than once he expressed in substance a couplet that he had used on another occasion :

'O God! direct my erring mind to things above ;
Teach me to place my bliss in faith, and hope, and love!'"

pp. 65, 66.

In 1825, remittents again made their appearance. We do not observe any modification of consequence in the treatment.

Dr. Sherrill relates the introduction of small-pox from one source and the varioloid from another. His conclusions respecting these two forms of the same disease, confirm those of preceding writers.

In his observations on pneumonic diseases, Dr. S. confirms an observation we made when reviewing the Essays of Drs.

Miner and Tully, on the asthenic characters of the diseases which fell under their notice. He states, that, in his county, it would prove a dangerous delusion to adopt the position of Dr. Miner, that the inflammatory nature of disease has entirely left our country.

Puerperal Fever. The opinions of our author on this disease are, generally speaking, correct, except on certain points in which they have been influenced by the verbal opinions of those who too frequently resort to hearsay evidence as a support to their crude and ill digested notions. Thus one physician was informed, *on very respectable authority*, that puerperal fever prevailed *several years ago* in a neighbouring state and proved fatal. What authority was in this instance relied on? That of nurses, or farmers, or ignorant physicians? Shall we, on such grounds, refuse to range the disease among those of an active inflammatory or oppressively congestive class, both requiring powerful evacuation in the first stage? As well might we class yellow fever and dysentery among diseases of debility, requiring only diluents and the mildest laxatives. Proh pudor!

Treatment. Free venesection, large doses of calomel, aided by cathartics. To relieve the aggravated pain which accompanies this fever our author recommends a large bleeding, say from twenty to sixty ounces, within the first twenty-four hours, followed by calomel, ipecacuanha, and opium; of the latter three grains at first, and one or two to be repeated every three hours, till it has produced its effect. Sinapisms and fomentations, and afterwards a blister, are also recommended.

We shall select one case from those recorded by our author in support of his practice.

"Mrs. B———, aged 24, after a labour in no wise peculiar, was delivered on the 30th of September.

"October 2nd. Forty-eight hours after delivery, she was attacked with severe pain in the head, small of the back, and sacrum, together with general soreness and tension of the abdomen. The pain through the uterine region was also particularly severe. The tongue was slightly furred, white in the middle, and fiery red on the edges: the skin was very little heated, rather inclining to clamminess. Her breathing was laboured, somewhat

resembling that of a lady in tight-laced corsets, seeming to exert the diaphragm only. The secretion of milk was partially suspended, and the lochia totally suppressed. She was bled at 9 o'clock A. M. twenty ounces, and commenced taking five grains of calomel, one of opium, and two of ipecacuanha, to be repeated every three hours. Warm alkaline fomentations were applied to the abdomen. The bleeding was repeated to sixteen ounces in ten hours.

"9 o'clock P. M. Some nausea, and a little vomiting induced. The breathing rather improved; pain considerably abated; the pulse rounder and softer. The lochial discharge has appeared: she sweats copiously. Omitted the fomentation, and applied a blister to the abdomen.

"Oct. 3d. The medicine began to purge at 10 this morning; before which the pulse became quicker (120 in a minute) and smaller, and the tongue more furred.

"10 P. M. The pulse has fallen to 95, and become more natural; the heat and fever considerably abated. She sweat gently; had some strangary; very little pain, except from the cathartic effect of the medicine. The calomel and ipecacuanha were discontinued, and two grains of opium given.

"Oct. 4th. 7 A. M. During the night she has had several stools, attended with some pain. Sweat freely the whole time, and obtained some easy and natural sleep. The scurf mostly removed from the tongue. She took twenty drops each of laudanum and tincture of kino after each stool.

"10 P. M. During the day, took a gill of wine. After it she had a little fever, and the pulse became more tense. The wine was omitted, and simple nourishment recommended. At evening, fifty drops of laudanum were given as an anodyne, and the laudanum and kino mixture continued as before.

"Oct. 5th. Rested well last night, and appears very tranquil: has strength to assist herself quite well; and seems free of disease.

"6th. Convalescent."—pp. 97, 98, 99.

Caries of the Jaws of Children. Dr. Sherrill republishes a paper he had read several years ago before the Medico-Chirurgical Society of the University of this State; and, as it relates to a subject not ordinarily touched upon, we shall here give a brief account of it.

The disease has recurred repeatedly in charitable institutions in this city and Philadelphia.

Symptoms. Slight swelling and pain in some part of the jaw, generally the upper one. One, two, or more teeth become loose, and begin to turn black about the cervix. The gum is detached from the teeth and evidently corroded, so that

the jaw-bone becomes visible, black, and dead. The breath is very offensive; the lips swell, and the teeth painful. The bowels are troubled with diarrhœa. If the disease be not arrested, the jaw is more and more denuded, the teeth and mortified jaw may with ease be taken away. The face, tongue, and fauces, are swelled; there is difficulty of deglutition; more or less fever; great languor and debility, and the discharge from the diseased surface is so acrid as to corrode the skin.

Causes. Crowded and ill ventilated apartments, meagre diet, especially composed of substances very liable to acetous fermentation, are suggested by Dr. S. The neighbourhood of marshes seems to have had influence in the cases recorded by Dr. Coates of Philadelphia.

Treatment. Astringent gargles, especially sulphas cupri. These suffice in mild cases, together with the extraction of the diseased teeth. In severe cases, these gargles must be made stronger, and bark with cordials is indispensable.

There are added to the description of Dr. Sherrill two letters, the one containing a recapitulation of his own views, together with a few extracts from other authors; and the other a reference to Dr. Coates' paper, with an extract from the lectures of a professor, not imparting a single new idea.

Dr. Sherrill would have sustained the reputation of his work much better by omitting these jejune volunteer contributions.

QUARTERLY HISTORY

OF

IMPROVEMENTS IN MEDICINE AND SURGERY.

Foreign.

PHYSIOLOGY.

Abstract of Experiments on the passage of certain substances into the urine. By Dr. Wöhler.*

Indigo.—Messrs. Tiedemann and Gmelin found in a horse who had taken a pound of the sulphate of indigo neutralized with potass, the urine changed into a greenish blue. M. Wohler observed the same thing in a dog.

Rhubarb.—It is pretty well known that rhubarb yellows urine, and that it reddens when potass is added. This fact has been ascertained by Tiedemann and Gmelin, Home, and Westrumbs; the latter found his urine to be changed ten minutes after the ingestion of the substance. Bradner Stuart experienced the same result from a rhubarb bath. The red beet-root tinges the urine red; the root of the cheledonium magnum (*celandine*) produces a yellow colour, very well marked; and so does gamboge. Reil, in his *Fieberlehre*, maintains, that sheep who have made use of the *ciscus laurifolius*, emit red urine; and, according to Wildenow, the same thing occurs from using the greater number of the *cacti*.

If we mix an acid with the urine of those who have eaten myrtle berries, we will often find the clear reddish colour of wine. This is exactly what takes place when the juice of the *vaccinium myrtillus* is treated with an acid or an alkali. The uric acid which is precipitated from these kinds of wine, has always more or less of the colouring principle of the myrtle. We have the same results from black cherries and mulberries. Damas, prunes, and cassia nigra have also the same effect.

Odorific Organic Principles.—Every one knows what effect the oil of turpentine produces on the urine of men and animals, whether it be taken

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* Zertchrift für die physiologie, No. 2, 1825.

internally or applied to the skin. M. Wohler thinks that the violet odour is neither more nor less than the ordinary odour of urine, mixed with a very small quantity of oil of turpentine. Nevertheless, it has not been possible to produce this effect by the mixture of these two substances. This, he thinks, is owing to the imperfect mixture; which is, however, completely effected in the kidneys. Juniper berries, it is said, also communicate the odour of violets to the urine.

John says that the urine of those who make use of valerian emits a smell like that of myrrh; he even pretends that castoreum, opium, assafœtida, and saffron, give each its peculiar odour. The effect of asparagus on the urine is well known. The herba jaceae (*violette tricolore*) gives to the urine of those who take it the smell of a cat's urine.

Narcotic Principle.—The use which the inhabitants of Kamschatka make of a certain mushroom (*a. muscarius*) is well known. What is very remarkable, the urine is said to possess the same intoxicating qualities as the mushroom, and even in a higher degree. Langsdorff asserts that these people treasure up this urine which they use for intoxication! Nay, he maintains that certain individuals gather the urine of others, and that the effect produced, like the perpetual pills, goes to the fourth or fifth individual! The case of a young girl, recorded by Bachetoni, who emitted oil with her urine, after having taken the oil of sweet almonds three days previous, is here noticed by the author.

Morbid matters formed in the body, and secreted with the urine.

Albumen.—In dropsies this substance is often found in the urine. As soon as the collections of water disappear, however, the albumen is no longer to be found.

Chyle.—The ancients spoke sometimes of chylous and gelatinous urines. Prout has proved that their opinions were not altogether incorrect. In cases of dropsy occasionally, and frequently in the *morbus maculosus hæmorrhagicus* of Werchof, blood has been observed. As to the observations on bile, the experiments of Orfila are well known; and with regard to diabetes, the sugar that is found in the urine is sufficient to prove that it can be formed in the body.

Of Substances, the passage of which into the urine is doubtful, and of Substances which do not enter.

Carbonic Acid.—M. Wohler coincides with the opinions of Marcet and against those of Vogel, Prout, and Brande; which is, that this acid does not pass into the urine. That the quantity which is found is only the quantity that was in the blood itself. He thinks that he is able to affirm this fact from experiments made on himself.

Iron.—Direct experiments have convinced the author that this metal passes into the urine. Lead and bismuth never enter, neither do cochineal nor turnsol.

Mercury and Camphor.—Mercury was not found by the author. His opinion is opposed to Cantu's, and coincides with Gmelin's and Tiedemann's,

Camphor, concludes the author, is never evacuated by the kidneys, but by the lungs and skin.

PART II.—*Physiological Conclusions.*

1. The following substances have not been found in the urine. Lead, alcohol, sulphuric ether, camphor, the animal oil of Deppel, musk, cochineal, turnsol, and carbonic acid.

2. The following substances have been found, but decomposed. Hydro-cyanate of potass, and deutoxide of iron, are changed into hydro-cyanate of potass and protoxide of iron. Tartrates, citrates, malates, acetates of potash and soda, are changed into carbonates. Hydro-sulphate of potass is changed into sulphate of potass.

3. The substances which enter into new combination with the substances they find in the body, and are evacuated by the kidneys. Sulphur is changed into sulphuric and hydro-sulphuric acids. Iodine into a hydro-oxate, oxalic, tartaric, gallic, succuric, and benzoin acid, are found in combination with an alkali.

4. The substances which pass into the urine without decompositions, are the carbonate, chlorate, nitrate, and sulphate of potass. Hydro-sulphate, and hydro-cyanate of potass. Protoxide of iron, borate of soda, muriate of barytes, silicate of potass, tartrate of nickel and potass. Many colouring matters, such as those of the sulphate of indigo, gamboge, madder, log-wood, beet-root, mulberries, and cherries. Many of the odoriferous principles, partly altered however, such as the oil of turpentine, the odoriferous principle of the juniper berries, valerian, assafœtida, garlic, castoreum, saffron, and opium. The narcotic principle of the *fausse oronge*, and, in the morbid state, thickish oil.

The first set of substances are either destroyed, altogether altered by the process of chylification and sanguification, or they are used for nutrition, or evacuated by other organs. Some of them are made insoluble and incapable of being absorbed.

The substances belonging to the second class are oxidized either by animal matter, or in consequence of respiration; such as the hydro-sulphate of potass. This last effect probably takes place in the vegetable alkalies, which are changed into carbonates in the blood. That it does take place in the blood, M. Wohler thinks he is entitled to conclude from certain experiments that prove it does not take place in the stomach.

Of the third class it is probable that uncombined acids do not pass into the urine unless they are given in very great doses. This fact appears to be confirmed by the experiments of Magendie and Berzelius.

Although the urine is not more acid than it usually is, it ought not to be concluded that the acid has not entered into the urine. This proves the inefficacy of small doses of acids in dissolving calculi.

Many of those substances which pass into the urine without alteration are diuretic. Thus it may be said that those substances which augment the secretion of the urine, are able to pass into the urine.

M. Wohler concludes from what has preceded, that all the substances which are soluble in the liquids of the body, that are not assimilated, and which are not decomposed and changed into an insoluble substance; those that are not destroyed by respiration or other chemical actions in the body; those that do not act in a manner too astringent; and finally, those that are not so volatile as to pass by the pores of the skin, or by the lungs; all these substances can pass into the urine. M. Wohler thinks, with Prevost and Dumas, that the constituent parts of urine are formed in the blood, and that they are simply evacuated, not formed by the kidneys.

Therapeutical Conclusions.

The power of the vegetable alkalis to pass into alkaline carbonates, and as such to pass also into the urine, make them useful in the treatment of the pathological formation of uric acid. They have an advantage over the alkaline carbonates directly employed, in not being hurtful to the digestive organs; in being more agreeable to take, and susceptible of being varied. The uric acid is besides soluble in the alkaline carbonates, as Wetzler has proved.

The fruits which contain a vegetable alkali, such as cherries, strawberries, &c. will answer perhaps more usefully. It is said that Linnæus cured himself of the gout by a diet of strawberries. Professor Chelins has lately made some very satisfactory experiments since this essay was written.

Notwithstanding this, it is evident that we cannot hold out much hope that an uric acid calculus, completely formed, can be dissolved, because supposing the dissolution to have been effected, the phosphorous earthy salts would be precipitated by the continued alkalescence of the urine, which instead of a calculus of uric acid, would produce a calculus of an earthy phosphate, which would certainly be no great advantage.—*Anderson's Quarterly Journal.*

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*Bostock on the Saliva during the action of Mercury.**—After a detail of his experiments, in which no trace of mercury was detected in the saliva, during ptyalism, Dr. Bostock remarks:—

"The conclusions which we may draw from the above experiments on the nature of the saliva discharged while the system is affected by the action of mercury, are sufficiently remarkable to arrest our attention. We learn from them, in the first place, that no portion of the mercury is actually present in the fluid, from which it follows that the effect of this medicine, although so remarkably manifested upon the salivary glands, must be produced through the medium of the system generally, and hence we may presume that all the organs destined for the secretion of mucus will undergo the same change. This change would appear to consist essentially in the conversion of the animal matter, from the state of a mucus to that of a serous, or rather of an albuminous fluid.

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* Medico-Chirurg. Trans.

"Now, although we are not sufficiently acquainted with the theory of secretion to know what are the minute operations which enable the capillary vessels connected with the glands to produce their appropriate fluids, yet we may form some idea of the relation which they bear to each other, as far, at least, as regards the greater or less complexity of the process. All those fluids, for example, which proceed from what are termed serous membranes, appear to differ from the serum of the blood solely in the proportion of albumen which they contain, and we may therefore conceive that they are generated by a process resembling transudation; and that this is, in a great measure, of a mechanical nature. In the secretions, however, which are discharged from the mucous surfaces, we find a change effected which is of a chemical nature, where a new substance is generated which did not previously exist in the blood. In what way the vital functions act, so as to convert albumen into the mucilaginous matter which forms the basis of saliva is, at present, beyond our power to ascertain; but whatever it be, we find that in the case before us, the operation of mercury upon these parts is to counteract the ordinary secreting process, and to reduce the action of the glands to that of mere transudation."—*Ib.*

PATHOLOGY.

*Dr. Macmichael's Cases of Diseased Heart.**

1. *Case in which Tubercles were found in the Pericardium and Cavities of the Heart, as well as in the Lungs.*—J. Burrows, aged thirty-five; admitted April 4th, died June 2d, 1826. This man, during life, laboured under symptoms indicative of disease on the right side of the heart. He was originally admitted into the hospital for colica pictonum; and, upon the subsidence of this affection, the following symptoms claimed the attention of his physician:—

"The upper half of the body became œdematous; the countenance was livid, and occasionally of a purple colour; the breathing was unnatural, and at times even difficult; the pulse did not deviate much from health. There was considerable anxiety depicted in the countenance; that peculiar expression so characteristic of disease of the heart, or large vessels connected with it. In short, there was evidently an obstruction offered to the free transmission of the venous blood on the right side of the heart, causing an accumulation in that part, and turgescence in the large venous trunks. The serous infiltration into the cellular membrane, producing œdema of the upper part of the body, appeared to be the effect of this obstruction to the venous circulation.

"He continued in this state for several weeks. The little sleep he had was disturbed; medicines appeared to have but little effect, even as palliatives; the symptoms became more severe; the lividness of the surface,

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* Medical and Physical Journal, for August, 1826.

and the œdema increased; and he at length sunk, exhausted and worn out by the long continuance of his disease.

"The preceding brief sketch will serve to connect the symptoms with the morbid appearances.

"*Dissection.—Thorax:* the lungs were completely disorganised; the parenchymatous structure was thickly studded with white tubercles, in different stages of development. Here and there this process appeared to be so far advanced as to have removed the tubercles themselves; the cysts which they had occupied now containing pus of a scrofulous character, and forming abscesses of different dimensions. Other parts of the lungs were found to contain a ligamentous structure, which was cut through with some difficulty. So numerous were these different morbid changes throughout the substance of the lungs, so dense was their structure, and so universally adherent were they to the surrounding parts, as to cause great difficulty in removing them from the chest.

"The pericardium contained tubercles, apparently of the same structure; these were situated around the base of the heart. At the angle formed by the reflexion of the pericardium over the surface of the heart, they were covered by the delicate serous membrane. On opening the heart and large vessels, this morbid growth was found to encroach even upon their cavities. A large tubercle, situated at the union of the two cavæ, and others surrounding the inferior cavæ, just after its passage through the diaphragm, had so straightened these vessels, that it was with difficulty that the little finger could be made to pass the obstruction. A similar morbid growth was observed in the right auricle, forming a considerable projection; this occupied the septum auriculorum, and thus implicated also the left auricle.

"*Remarks.*—This dissection satisfactorily accounts for the symptoms of venous congestion on the right side of the heart: and it is not at all improbable that death was caused by the long-continued circulation of imperfectly arterialized blood; indeed it is only astonishing how life could have been so long supported with such a diseased state of lungs. It is worthy of remark, that this patient never had cough, expectoration, or any other symptom of phthisis.

"Although Boerhaave is supposed to have described tubercles of the serous membranes, and Bichât, with De Haen and others have given more accurate descriptions of this disease, still (with the exception of the latter author,) Dr. Baillie appears first to have noticed tubercles of the pericardium. He states that they are of very rare occurrence, and that he has only met with one instance of their formation in that membrane. Dr. Baron, in his work on Tubercles of the Serous Membranes, has not treated of this disease in the pericardium.

"The above case was first supposed to be an example of the disease described by Dr. Baillie; but on making a more accurate examination, it evidently appeared to be merely a propagation of the tubercles from the lungs; for it was singular that not one of these formations was in an insu-

lated state, but they were found to be invariably connected with tubercles arising from the lungs. Some of them appeared to be the bronchial lymphatic glands in a diseased state. There was no inflammation of the heart or pericardium. Proofs, however, of the independence of tubercles of inflammation for their production, have now ceased to be necessary. If a doubt on this subject does still remain, we have here an instance of these formations in the heart itself, still without any symptoms of inflammation during life, or marks of the existence of such a state exhibited after death.

"2. *Case of Enlargement of the Heart, (the presence of which was not manifested by the symptoms) and of Acute Hepatitis.*

"April 7th, 1826. James Fisher, aged thirty-six, was admitted, on the 5th, with slight rheumatic symptoms: indeed, so slight were they as to lead to some doubt of the necessity of his becoming an *in-patient*. The bowels were opened, and some camphor mixture, with colchicum, given every six hours. Next day, his rheumatism was better, but some yellowness of the skin was observed. The tongue was clean, and the pulse natural. During the night of the 6th, the apothecary was suddenly called to him; he found him complaining of pain at the scrobiculus cordis and right hypochondriac region, which was increased on pressure; his breathing was oppressed. These symptoms continued to increase, and within four hours had acquired great intensity. The pain was very severe, and much aggravated by pressure; the respiration was difficult, with pain behind the right scapula; in short, the patient evidently laboured under an attack of acute hepatitis. Twenty-four ounces of blood were taken from the arm, from which he experienced great relief, and soon after fell asleep. The blood drawn was cupped, and its surface covered with a buffy coat of a yellow colour.

"About ten o'clock this morning, he died suddenly, having been seen about a quarter of an hour before, at which time he appeared to be much better, and expressed himself to that effect.

"*Dissection.*—The skin of the whole body was of a deep yellow colour. *Abdomen:* the liver was much enlarged, and of a purple colour. On making a cut into its substance, it exhibited a granulated and firm texture, arising from interstitial deposition. The vessels appeared to be gorged with blood; the peritoneal covering was perfectly natural. The viscus had evidently been some time diseased, but appeared to have recently taken on general inflammatory action.

"*Thorax*: the heart was of unusual size, and weighed two and a half pounds; a great increase, when it is remembered that the human heart, in a state of health, weighs only a few ounces.* The coronary arteries were thicker in their coats than natural, but there were no traces of ossifica-

* Lieutaud has described a heart which weighed five pounds.

tion. The enlargement of the heart in this case presented some peculiarities. The right auricle and ventricle were much dilated, and the communication between these two cavities had suffered with the general enlargement so much, that the valves, in consequence, must have been incapable of duly performing their office. The walls of this ventricle were softened; the muscular parietes were pale and degenerated; in short, the right auricle and ventricle were as one large and flabby pouch, stuffed with a dark coagulum, and their structure corresponded to the softening of the heart described by Portal. The left cavities presented a striking contrast with the above description. The muscular walls of the left ventricle were thicker and more vascular than natural, forming hypertrophy of the left ventricle; the aortic valves were slightly diseased; but any mechanical obstruction which could have been offered by them was too trifling, and altogether inadequate to the production of this morbidly increased growth of the ventricle.

"The lungs were found to be universally adherent to the pleura lining the ribs, and had suffered from a considerable effusion of serum into their substance.

"*Remark.*—It is remarkable that such extensive disease of the heart should have existed without the occurrence of any symptoms during life indicating its presence. This circumstance countenances the opinion of the late Mr. Burns, who states that symptoms of diseased heart seldom occur, unless inflammation supervenes, or the enlargement be of an active character."—*Ib.*

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*Dr. Young's Case of Disease of the Heart.**

"*Case in which numerous small Cysts, some of which contained pus, and portions of Lymph, were found in the Ventricles of the Heart.*—July, 1826. Ann Goodall, aged twenty; has been subject for ten years to occasional palpitation of the heart and sensation of choking in the throat, with pain in the left side of the thorax, extending to the back and left shoulder, and accompanied with vomiting. The attack commenced with sense of obstruction at the scrobiculus cordis, rising to the left shoulder, and descending the arm to the veins and little finger of the left hand. At first, these paroxysms occurred very rarely; once only in several months, and did not continue more than an hour or two at each time. Within the last two years, they have become much more frequent. In the intervals, she reports that she was perfectly free from ailment.

"Since Christmas last, these attacks have increased in frequency and violence, and she has suffered four weeks, with only one intermission, from the present attack. *Pulse above two hundred*, occasionally too rapid to be counted; with throbbing of the carotid arteries communicated to the veins, through which the rapidity of the circulation is remarkably visible. The

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* Med. and Phys. Journal, for September.

catamenia have not appeared for the last seven months. She sleeps only on the right side, and with her head raised. Burning heat is felt over the left side of the chest, with a sensation of great anxiety at the præcordia. Skin cool; no thirst; tongue clean; bowels costive; sleeps ill.

"It is worthy of remark, that during one interval of twenty-four hours, which took place while she was in the hospital, the pulse was ninety, and the symptoms greatly abated. With this exception, however, the symptoms continued to increase in violence until a few days before her death, when she became insensible, with occasional screaming and convulsions, particularly of the muscles of the upper extremities. The lower extremities became œdematous, and gangrene began to appear on the feet; and she died, August 9th.

"*Dissection.*—The feet and legs were in a state of mortification, with large vesications on the surface, and œdema of the whole subcutaneous texture of both limbs, as high as the pelvis.

"The lungs were more solid than usual, and contained a large quantity of watery fluid.

"The heart was rather large and fatter than is generally the case at so early an age. On opening the right ventricle, a quantity of solid substance was perceived, the nature of which it was at first difficult to discover, as it had some of the appearance of coagulated blood; but it was evident that a part of it only was the result of coagulation after death, and the remainder looked more like the contents of an aneurismal sac. On more accurate examination, however, it was found to consist principally of effused lymph, in masses of various shapes and sizes, and in different stages of formation; the colour being for the most part of a brownish yellow, but in some parts darker, as if mixed with blood. Many portions were loose and detached, but others adherent to the texture of the heart. Some formed distinct globular cysts, varying from the size of a pea to that of a small walnut; one cyst of the latter size being situated at the bottom of the ventricle. When these were cut open, the inner surface was reticulated, (in the same manner as may often be perceived in abscesses in the liver;) and some of them contained a few drops of pus, while others were entirely empty. The greater part of the lymph, however, was in the solid masses, easily torn or broken by pressure. The lymph was most abundant at the lower insertions of the fleshy columns of the tricuspid valve, but extended also into every hollow and sinus formed by the reticulated textur of the sides of the ventricles, in the lower half of its cavity, so as to make it doubtful, on first cutting the substance of the heart, whether the lymph and pus were situated in the cavity of the ventricle, or whether they were in small cells in the muscular texture. But the lymph could every where be raised, so as to show the smooth surface formed by the serous lining of the heart, except in one or two places, where it was doubtful whether there was not a slight abrasion of the membrane; though it seemed, on the whole, more probable that this appearance arose from a firmer adhesion of

the lymph, with which a portion of the membrane had been also raised by the handle of the knife.

"In the left ventricle, an exactly similar effusion of lymph was discovered, but in a smaller quantity.

"On making a longitudinal section of one of the pillars of the mitral valve, no distinct muscular appearance could be found, but a yellow substance was seen, in which fibres were only partially evident, between which substance and the serous membrane of the heart a small quantity of blood had recently been effused. In the upper part of the left ventricle, near its junction with the auricle, a considerable portion of the muscle was also partially disorganised, but in a smaller degree; the yellow substance being here in granules, mixed with the fibres, and with spots of effused blood; and a branch of the coronary artery could here be seen nearly obliterated by coagulation of the blood within it. A few smaller portions, of a similar appearance, were also seen in other parts of this as well as of the right ventricle.

"The brain was natural in appearance, except in the upper part of the left corpus striatum, which was softened and of a yellow colour, to about half its depth; and the circulation in the internal carotid artery of the same side must have been completely obstructed by a firmly adherent coagulum, which was found within it at the side of the sella turcica. The dura mater was much more opaque than usual."—*Ib.*

Observations upon a case of Chronic Dyspnœa. By M. Andral, fils.—'A young man, twenty-four years of age, having had indolent swellings in the lymphatic ganglia of the neck, presented many symptoms of disease of the heart when he entered the hospital La Charité, in the beginning of March 1826. Face bloated; livid lips, and alæ nasi of a violet hue; œdema of the eyelids; ascites; slight effusion in the lower extremities; respiration short, hurried, entirely executed by the ribs. Horizontal position induced an instant sense of suffocation: and the patient passed his days and nights in a half-sitting posture, upon his bed, the head and trunk being supported by pillows. This difficulty of breathing had come on very gradually, but for more than a year had been exceedingly distressing to the patient, and was always augmented in damp and rainy weather. The chest sounded clearly in every part upon percussion. Auscultation gave no indication of disease, either in the heart or great vessels. A mucous râle was heard in different parts of the chest; in one part a dry, hissing râle—in another the respiratory sound was clear, but intense. For several months the patient had suffered from catarrh; he had never, however, spat blood,—and when we saw him, his expectoration was scanty, and mucus only. The appetite was tolerably good; and he had habitual diarrhœa, but without any pain in the abdomen. The pulse, not at all accelerated, exhibited nothing unusual either as respected its strength or rhythm.

'Nothing proved that disease of the heart existed in this individual; and yet this malady was indicated by many symptoms, as dropsy, orthopnœa, and the appearance of the countenance. This dropsy presented, however, one circumstance which is not commonly met with in diseases of the heart,—effusion had taken place in the lower extremities, consecutively to the abdominal effusion, and was still slight. We know, on the other hand, that in disease of the heart, dropsy commences, in the majority of cases, with œdema round the ancles. Auscultation discovered no cause of the dyspnœa either in the lungs or in the heart.

'The treatment consisted in general and local bleeding; in the application of blisters upon the chest and lower extremities; diuretic tisane, and frictions, with tincture of digitalis, and squills.

'Through the next six months the patient experienced no particular change: the orthopnœa was continual; respiration became exceedingly hurried upon the slightest effort to go from his bed. Examination with the stethoscope gave no farther information. We never observed any fever properly so called. Nothing announced the approaching death of the individual,—when, without any manifest change having supervened, he was suddenly seized on the first of May with an extreme dyspnœa; very soon a tracheal râle ensued; respiration became apoplectic; and after a few hours he died.

'*Examination of the body.*—Nothing remarkable was found either in the brain or spinal medulla.

'In the thorax, the heart had all its usual proportions, and was entirely free from disease,—as also was the pericardium: it contained a small quantity of dark-coloured blood, partly coagulated. All the vessels of the heart were healthy. A small quantity of miliary tubercles were spread through the lungs, which were rather in a congested state, but yet sound, and every where full of air. Some old adhesions united the pleura pulmonalis and costalis on both sides.

'The anterior mediastinum was occupied by a large mass of tuberculous lymphatic ganglia. Through the middle of this mass the two diaphragmatic nerves passed; it was impossible to trace them, from the numerous tubercles that surrounded and pressed on them from every side. They reappeared at a short distance from the diaphragm; and, from the point where they were disengaged from the tubercular mass, to their distribution in the diaphragm, these nerves were remarkable for their gray colour,—similar to what the optic nerve affords distributed to an eye that had long been lost.

'In the abdomen the stomach was sound. Numerous tubercles were spread upon the mucous membrane of the small intestines; some small and superficial ulcerations, to the extent of some inches above the ileo-cæcal valve; a tubercle, of the size of a hazle nut, in the cortical part of one of the kidneys; cellular adhesions between the diaphragm and liver, the substance of which was healthy; and, lastly, in front of the vertebral column an enormous mass of tubercles, which strongly compressed

the vena cava on the one side, and on the other the vena portæ, the principal abdominal branches of which, as well as the trunk, it completely surrounded.

,On each side of the neck, there existed, from the edge of the jaw to the clavicle, a chain of tubercles like those of the thorax and abdomen. Many were interposed between the vessels and nerves of the neck; and the carotid artery and internal jugular vein were separated by these tubercles. As for the pneumo-gastric nerve, it was entirely lost in the middle of the tubercular mass, some inches below the origin of the superior laryngeal nerve. It reappeared a little below the level of the clavicle; and was remarkable on both sides *from being flattened.* It gave origin, as usual, to the recurrent nerves. In the remainder of its course, and especially in those branches which form a great portion of the pulmonary plexus, there was nothing remarkable.

'The cervical portion of the great sympathetic had experienced no manifest alteration either in its structure or position.

'Each axilla was occupied by a tumour of the size of a large orange, consisting of an assemblage of tubercular lymphatic ganglia.

'The thoracic duct, permeable as usual, contained a small quantity of reddish serum.

'This observation appeared to me particularly interesting, from the state in which most of the respiratory nerves were found, and particularly the nerves of the eighth pair. M. Béclard has already related the case of an individual in whom he could find no other lesion to explain a considerable dyspnœa that had existed during life, than a large tumour, developed in the substance of one of the diaphragmatic nerves. (Thesis of M. Descot, upon Affections of the Nerves.) In the present case, not only the two diaphragmatic nerves had undergone a great alteration, which was sufficiently manifest by the gray colour, the true atrophy of their inferior extremity, but the two pneumo-gastric nerves were also seriously involved, as was proved by the impossibility of tracing them through the tumour, and their flattened extremities. Now, if the experiments of physiologists have proved that after the division of the eighth pair of nerves sanguification is not perfectly performed, the lungs become congested, and death supervenes in a few days—is not the fact here reported an additional illustration?—"rapprocher de cet ordre de faits."

'There was equally a gradual diminution; and, lastly, a cessation of the influence exercised by the eighth pair upon the transformation of the venous blood into arterial; hence the regular increase of the dyspnœa, &c. If we will not admit this cause of the difficulty of breathing, we have no other organic lesion which will enable us to account for it; for I cannot think that the few miliary tubercles that were found in the lungs will at all explain the dyspnœa, which was as distressing as that which is met with in the severest diseases of the heart. In whichever way we consider it, whether as connected with the morbid appearances that were discovered,

or as independent of every manifest cause, I consider the case as one of sufficient interest to lay before the Society.'—(*Bulletin de l'Athenée.*)

We regard this as a case of extreme interest; and there can, we think, be no doubt of the connexion of the symptoms during life with the morbid appearances discovered after death. The disease was evidently incurable; but by proving that dyspnœa may arise from disease of these nerves, which before we could infer only from experiment (for Béclard's case is almost unknown), it affords farther proof, if proof were wanting, of the correctness of Dr. Philips' views in some species of asthma. It would have added very considerably to the interest of this case had galvanism been tried.—*Lond. Med. Rep. and Rev.*

On the direct application of Galvanism to the Nerves of the Orbit, as a remedy for Amaurosis, by M. Magendie, (*Journal de Physiologie, Avril* 1826.) If Magendie is correct in the opinion he has deduced from his experiments on the fifth cerebral nerve,—that its integrity is necessary to vision,—it follows, that amaurosis may be sometimes owing to a disease in that nerve, as well as to an affection of the optic nerve in other cases. He has therefore conceived it possible, that some kinds of amaurosis may be successfully treated by applying stimuli to those branches of the fifth nerve, which are within the reach of the surgeon, and in the neighbourhood of the orbit. The stimulus which struck him as the best to employ for determining the justice of this idea, was acupuncturation, and galvanism applied through means of the needle. Having first ascertained, by experiment on animals, that needles may be thrust into the substance of nerves without injury, he proceeded to try in the first place the effect of simple acupuncturation. In a young man affected with amaurosis, with insensible pupil, he introduced a steel needle into the frontal nerve where it emerges from the supra-orbitary hole. The patient immediately felt the same sensation as when the cubital nerve is struck at the elbow, namely, a prickling at all the extremities of the nerves. The operation was repeated on the infra-orbitary nerve with the same result. Afterwards he succeeded in puncturing in the same manner the lacrymal twig of the fifth nerve; and immediately the patient experienced a peculiar sensation in the orbit, and the tears flowed profusely. At each puncture of these nerves the iris contracted, but the amaurosis was not diminished. Magendie then proceeded to combine with the puncturation the more powerful stimulus of galvanism, by thrusting one needle into the frontal, and another into the infra-orbitary nerve, and connected one with each end of a voltaic pile of twelve pair of six-inch plates. Each time the electric circle was established, the patient felt a painful commotion in the course of the nerves and in the bottom of the orbit, while at the same time the pupil contracted, and the light became more distinct. This treatment being continued fifteen days, the pupil returned to its original dimensions, and the amaurotic state of the eye was evidently diminished; but Magendie was unable to observe the future pro-

gress of the case, as the patient left Paris. Since then he has applied the same treatment to several cases of incomplete amaurosis, and with almost uniform advantage. In one instance of amaurosis of the external half of the retina, accompanied with palsy of the upper eye-lid, and *rectus internus* and *superior* muscles of the eye, a complete cure was effected in three months. He has not hitherto had an opportunity of trying a case of perfect amaurosis. Meanwhile he assures us, that the pricking of the nerves is never followed by the slightest inconvenience, which can form an objection to the experiment; and, therefore, it is highly expedient that this new remedy for so obstinate and unfortunate a malady be subjected to immediate trial by others.—*Edinb. Med. and Surg. Journal.*

On spontaneous Erosion of the Stomach, its Symptoms and Treatment. By Dr. Pitschaft of Carlsruhe.—That species of erosion of the stomach which Mr. John Hunter ascribed to the action of the gastric juice after death, and which the Parisian pathologists believe to be the results of a vital morbid process, has been lately described with minuteness by various physicians as occurring in infants. Among the authors who have written on the subject may be mentioned Jaeger of Stuttgard, Cruveilhier of Paris, and Dr. Gairdner of this city. Dr. Pitschaft has endeavoured to supply a great deficiency in our present knowledge of the disease, by describing the symptoms through means of which it may be recognised during life. It occurs, he says, only among the children of unhealthy mothers, or those who are too soon and too much fed without milk, and whose mind is precociously developed. The first symptoms are paleness of the countenance, coldness of the skin, with occasional flushes of heat, dulness, and flaccidity of the muscles. Loss of appetite succeeds, with excessive thirst, dry shrivelled lips, and dry cracked tongue. At the same time the child vomits all his food, and the alvine discharges become frequent, loose, and consisting of half-digested ailment and slimy matter, like bookbinder's paste with shreds of spinage in it. He is constantly in a state of lethargy, from which, however, he is roused by the slightest touch; and his senses remain active to the last. The countenance, when the disease is fully formed, expresses pain, but not acutely, the mouth has a sorrowful appearance, the look is languishing, the eye half open, the pupil turned upwards during sleep, and the whole physiognomy oddish. He whines frequently, and is so very fretful that if any one looks at him steadily even from a distance, he cries and shifts his posture. The pulse is at first slow and intermitting and does not become quick till near the close; frequently there is a slight cough, and an erysipelatous inflammation of the eye-lids; the respiration is not much affected at first, and becomes laborious towards the end. His belly is rarely much swollen. The urine is very often diminished in quantity.

In cases, which the author supposed from the foregoing symptoms to be of this description of disease, he found the mineral acids useful, but more recently he has resorted to the acetic acid, which he gives in the form of pyroligneous vinegar, with eight parts of syrup, and sixteen of the distilled

water of orange-flower. He recommends at the same time that the food consist chiefly of barley-water sweetened with sugar, and that it be given in small quantities at a time. His description of the disease accords very nearly with that given by Dr. Gairdner in the second volume of the Edinburgh Medico-Chirurgical Transactions, but is more minute. We question, however, wnether it is, as the author thinks, *pathognomonic.—Ib.*

SURGERY.

Notice of Eight Calculi arrested in their passage through the Urethra, and extracted by means 'd'une pince à gaine'—forceps with a sheath. By M. Legalas.—'The subject of this observation was Captain B a gentleman of sanguine temperament, strong constitution, and good moral habits. He had retired to his native place, where he lived calm, and free from every inconvenience; when two years since, at the moment of getting into the Diligence, he was seized with a complete retention of urine. He proceeded, however, from Paris to Chartres, which took thirteen hours. At this last place, and after the escape from the urethra of a body which night did not permit him to distinguish, he was enabled to empty his bladder. For a year and a half from this time, he continued to pass his urine in a full stream; but there were always momentary retentions, which determined him to employ habitually a mild regimen, 'régime adoucissant.'

'About last December, M. B. passed a lenticular-formed calculus, of the diameter of six lines, after violent efforts, and a retention of urine, that endured from six o'clock in the morning till eight at night. The urine then flowed copiously, but mingled with a considerable quantity of blood.

'A month after (January), he was again seized with retention of urine, sudden and complete; but this time, in less than five minutes, and with slight effort, a calculus came away, of nearly the same size with the former. This was so fragile, that while trying its consistency it crumbled between his fingers.

'From this time he remained tolerably well for four months; occasionally, however, he noticed slight difficulty in passing his urine,—and sometimes it was mixed with blood, particularly after bodily fatigue.

'In May, after beginning to urinate as usual, he perceived a sudden obstruction, occasioned, to use his own words, 'par l'effet de quelque chose qui se détachait du corps,' by the effect of something that was detached from his body; and he remained without passing any urine for a whole day. But at night, having recognised the presence of a foreign body in the urethra, and having laid hold of it with his fingers, he discovered that he could in this way pass his urine; but he could not entirely remove the opposing body. He continued, however, to pass his urine in this manner, till several calculi had successively arrived in the urethra.

'At length, on the 26th of October, the day on which I saw him for the first time, M. B. counted six calculi; he could no longer pass his urine,

till after many attempts to hold the calculi; often lost blood from the urethra; and the slightest error in diet, or fatiguing exercise, occasioned him fresh inconvenience.

'It was impossible to have the least doubt respecting the cause of these symptoms; but we wished to ascertain if the calculi were retained by a band across the urethra, or by a stricture. Examination quickly cleared this point; a silver sound passed without difficulty to the calculi; and we no longer hesitated in our endeavours to extract them.

'A strait forceps, enclosed in a sheath, brought one away very easily; this was the smallest. The second could not be laid hold of with the same forceps; but was easily seized by another curved pair and grooved at upon the side. It was obstructed, however, at the gland, and broke under the instrument, and then came away in fragments. Four other lenticular-formed were drawn out easily, and extracted by the aid of these forceps. Lastly, the seventh, unquestionably the greatest, was readily seized, but passed the gland with difficulty, and not till it had been broken.

'The operation was concluded without any accident, and without any farther inconvenience than a slight gleet. Another calculus was extracted on the 26th of November,—from which time he had remained well till the publication of the paper in July.

'The calculi were analysed by Vauquelin, and were found of uric aid, with a small proportion of potash, with traces of phosphate of magnesia and soda.'—*Lond. Med. Repos. and Rev.*

OBSTETRICS.

Stethoscopic Indications of the Pregnant state.—Among the various useful purposes to which the stethoscope has been applied since the first publication of the invention, one of the most important is its employment to ascertain the pregnant state. The merit of discovering its utility in this way is due to M. Lejumeau de Kergaradec, the friend and "compatriot" of Laennec, who published a small *brochure* on the subject in 1822.* A few additional particulars and some new observations, respecting the indications it furnishes, are given in the recent edition of Laennec,† from which we extract a succinct account to lay before our readers.

The stethoscope, applied to the abdomen, affords two distinct indications, which may be regarded as the most unequivocal signs of pregnancy we possess. The *first* of these is the *action of the fœtal heart.* The *second* is a *simple pulsation accompanied with a rushing noise*, designated as the *noise of the placenta* (bruit placentaire) by M. Kergaradec, because its

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* Entitled 'Mémoire sur l'Auscultation appliquée a l'Etude de la Grossesse, par M. Lejumeau de Kergaradec. D.M.P.' Paris, 1822. 8vo.

† Tome iii. pp. 457. 466.

seat is in the placenta, or in that part of the uterus to which the placenta is attached.

(1.) The *Action of the Fœtal Heart* is characterised by *double pulsations*, which are always much more rapid than in the adult subject, being generally twice as frequent as the maternal pulse. These pulsations are distinctly audible from the sixth month of pregnancy, and are sometimes heard a little earlier. Their *situation* is mostly extensive, varying with the position of the child, and being often perceptible in a space a foot long, and three or four inches broad. The precise point whence the pulsations arise, may be always ascertained by the intensity of the noise, which increases or diminishes according as we examine nearer or farther from their seat. It is probable that the space over which the fœtal heart is perceived will be greater, in proportion as the child is placed closer to its membranes, and, consequently, in proportion as the liquor amnios is small in quantity.

The noise sometimes ceases to be audible for hours or even days together. Laennec thinks this may sometimes depend upon the feeble action of the heart, but more frequently is owing to the child having changed its position; so that no part of its trunk touches the membranes, or because a fold of intestine has intervened between the uterus and abdominal parietes.

The action of the fœtal heart is a sign respecting which there can be no uncertainty, nor can it be mistaken for any other; for, although we sometimes hear the heart of the mother, when examining over the epigastrium, sides, or loins, the extreme *difference of frequency*, between the pulsations of the child's heart and those of its parent, prevents the possibility of error in this respect.

The state of the circulation in the fœtus is not affected, or, at least, not constantly affected, by agitation in the maternal circulation, and *vice versa*. Once, whilst M. Kergaradec was examining the pulsations of the fœtal heart, they were suddenly accelerated so much, that it was impossible to count them: the mother was in a perfectly calm state at the time, and her pulse was not at all quickened. In the course of a few seconds the fœtal pulsations resumed their accustomed frequency, which ranged from 120 to 160. It has also happened to Laennec to witness the fœtal heart suddenly acquire extraordinary energy, its *noise* becoming almost as great as the healthy adult heart; but not accompanied by *impulsion*, or any notable change in the *rhythme* or the *frequency* of its strokes. The phenomenon lasted only a few seconds, and the mother experienced no kind of emotion.

(2.) With regard to the second phenomenon, *the noise of the placenta*, Laennec remarks, that it is "evidently an arterial pulsation perfectly isochronous with the pulse of the mother, and accompanied by a rushing noise," resembling the blast of a pair of bellows. There is no sensation of *shock* or impulsion along with this pulsation: it is *heard* only, and it appears to be too deep-seated to be *felt*. The place which it occupies

never changes, but it varies in different individuals, and is seldom so large in extent as the space in which the fœtal heart is perceptible. It does not commonly surpass three or four square inches, but sometimes extends over a space exceeding the size of the hand. On one occasion, when visiting the Hôpital de la Maternité, M. M. Laennec, Kergaradec, and Lens, found a subject in whom it was perceptible throughout the whole of the right lateral region of the abdomen (flanc droit) and the right side of the loins.

The *time* when the pulsations of the placenta commonly begin to be heard, is the fourth month. As soon as the fundus of the uterus has risen above the upper brim of the pelvis, so that it can be brought into contact with the abdominal parietes by the pressure of the extremity of the stethoscope, the noise may be heard very distinctly, and sometimes it is even louder than at the full term of pregnancy. At this period, too, its character is peculiar, and different to what it is afterwards. It seems as if a rushing noise, of a somewhat whistling or sibilant nature, *resounded* in an empty bottle; whilst, at a more advanced period of pregnancy, it is almost invariably dull, very diffuse, and gives no sensation of being limited to the calibre of an artery.

This indication, like the action of the fœtal heart, is not continually present; there are some days when it can scarcely be detected; and it often disappears and re-appears during the time that we are making our examination.

That the seat of the phenomenon is in that part of the uterus to which the placenta is attached, has been proved by M. Ollivry, a physician residing at Quimper, who, by introducing his hand immediately after the expulsion of the fœtus, in four cases, found the situation of the placenta to correspond with the place where the noise was audible previous to delivery. The same person has also pointed out another strongly corroborating fact, viz. its disappearance immediately, the moment that the umbilical cord is divided. Laennec does not consider it arises from the placenta itself, but from that branch of the artery by which it is principally supplied. We shall have occasion to examine the facts adduced in support of this opinion in our review of the auscultic indications of the heart.

The noise of the placenta and action of the fœtal heart are commonly found on opposite sides of the body: this, however, is not constantly the case; for sometimes both the phenomena are audible on the same side, and in one instance M. M. Laennec and Kergaradec perceived the heart's action *behind* that of the placenta, the place at which they were examining being the anterior part of the hypogastric region.

In cases of *twins*, Laennec suggests, that there would be *two hearts*, and, perhaps, also, the pulsations of *two distinct placentas*, perceptible in different places. He has known one instance of this kind detected by the stethoscope previous to delivery. He also conceives that it may assist us in determining the *position* of the placenta, and of the fœtus, and, perhaps, throw some light upon extra-uterine pregnancies.

The study of these phenomena requires much greater attention than the indications of thoracic diseases. The noises being very slight and feeble, it is necessary that the apartment be perfectly still. On account of their intermittent nature, we are sometimes obliged to spend a considerable time in our examinations, and to repeat them several times: and it is particularly requisite to be well acquainted with the character of the indications themselves, so as to distinguish them from any others that may be present; particularly from the action of the mother's heart ;—from a dull noise, like the passage of air through thickish fluid, which the peristaltic action of the intestines causes; and, also, from the noise occasioned by the contraction of the observer's own muscles, in consequence of the pressure he is obliged to use in applying the cylinder, in order to keep the uterus and the parietes of the abdomen in apposition.

Remarks. The advantages of these indications over the usual methods of ascertaining the pregnant state must be too obvious to every one to require demonstration. As they depend upon the presence of a fœtus and a placenta, when they have once been heard, no doubt can exist upon the subject. The only material disadvantage attending them, that we perceive, is, that the inverse of this proposition does not hold good, on account of the phenomena not being always present or discoverable; so that their *non-existence* is not equally conclusive of there being *no fœtus*, as their presence is of its existence. Judging, however, from our own investigations, we apprehend that an attentive observer will rarely have to repeat his examinations many times, without finding one or other of them present, in subjects really pregnant; and, therefore, we conceive that he would be warranted in regarding the reverse as extremely probable, if he had repeatedly obtained negative results only.

The *objections* likely to be urged against the adoption of this method that occur to us, are, the indecency of exposing the female abdomen, the difficulty of acquiring a competent knowledge of the phenomena, and the liability of mistaking them. With respect to the first of these it is only necessary to observe, that so long as women can be induced, for the sake of alleviating suffering, or by other reasons, to submit to the examination *per vaginam* usually resorted to, no objection can apply against an examination, so infinitely less repugnant to the feelings, as that by the stethoscope. The difficulty of acquiring the use of the stethoscope, were it not frequently urged, would scarcely merit attention. Every thing has its difficulties, and auscultation has its full proportion; but they are not insurmountable to those who wish to learn, and are willing to bestow sufficient time and attention upon the study. To obtain practical skill in applying the stethoscope is not so difficult an acquisition as to play a musical instrument; and its sounds are much more distinguishable from each other than those of music. Attention, patience, and perseverance, are the three most important qualifications in the candidate for stethoscopic celebrity. The assertion which some individuals have put forth, that in their examinations they have not been able to discover any indications, may be answered

by informing them, that *others* have detected them, and found them of great practical utility. Whether their want of success arose from defects in the manufacture of the instrument they employed, neglect of the necessary precautions, an imperfect manner of applying it, want of attention, or personal defects in the auscultative organ, is for them to determine. The student will be in little danger of mistaking the auscultic phenomena of pregnancy, if the characteristic distinctions above-mentioned are carefully attended to. We think Laennec has rather *over-rated* the difficulties attending the examination of these indications than otherwise.

We learn from Mr. Jowett, of Nottingham, whose stethoscopic researches we have several times had occasion to refer to in the pages of this Journal, that he has observed the motions of the fœtus to be much more perceptible through the medium of the stethoscope than by the hand alone. *Lond. Medico-Chir. Rev.*

MATERIA MEDICA.

*Experiments and Observations on the Effects of Ergoted Rye upon Man and other Animals, &c.** From these experiments, apparently conducted with every precaution necessary to insure an accurate result, it follows that ergoted rye really exerts a very pernicious influence upon the animal economy. We are the more anxious to call the attention of our readers to this subject, because many authors have denied, and all have misstated, the morbid symptoms produced by this substance. The following experiments, therefore, cannot fail to prove interesting to the profession.

1st *Experiment.*—On the 21st of July, an ounce of spurred rye was infused with $1\frac{1}{4}$ lb. of water; the infusion had a slight tinge of a violet colour, a very disagreeable smell, and an unpleasant insipid taste. Four healthy persons experienced no ill effects from a dose of two coffee-cups full of this infusion.

2d *Experiment.*—On the 20th July, an infusion was made with 2 lb. of *boiling* water, and 2 ounces of ergoted rye; this infusion was stronger, of a deeper colour than the first, and had a still more unpleasant smell and taste. At 9 o'clock in the morning, six persons took each three cupsful of this infusion. After the expiration of two hours, three complained of a feeling of heat in the abdomen, and more particularly in the epigastrium, together with a general sensation of uneasiness, considerable nausea, and inclination to vomit. These symptoms subsided before noon, at which time these three gentlemen sat down to dinner with a good appetite. The other three did not experience any annoyance, except a feeling of warmth, and excitation in the region of the stomach.

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* Versuche und Beobachtungen uber die Würkung des Mutterkornes auf den menschlichen und thiereschen Körper, &c. &c. Dr. C. J. Lorinser. Berlin, 1824.

3d *Experiment.*—As the very disagreeable smell and taste of the infusion had excited a feeling of disgust, it was determined to use the ergoted rye in substance. On the 4th of August, five persons took each 2 drachms of the latter, spread on three slices of bread and butter. These five, whom we shall call A, B, C, D, and E, wrote down the following account of what they experienced: *A*, in the course of one hour, felt a slight sensation of pain in the epigastrium, together with symptoms of determination to the head, such as vertigo, increased warmth, and redness of the face, &c. In a short time after this he had a natural stool. At half past 11,* he was annoyed by a considerable dryness of the throat and mouth, periodical pains in the belly, and repeated eructations of an unpleasant taste. At noon, slight nausea, increased flow of saliva, some inclination to vomit, and fetid flatus. In half an hour more, the tormina and borborygmi increased, the nausea continued, and the head became more engaged. At 1 o'clock, repeated thin stools, voided with some tenesmus. At 2 o'clock, when he dined, all these symptoms had disappeared, leaving no other inconvenience but a great thirst, and occasional griping. *B* experienced in half an hour after the dose, a feeling of increased warmth in the epigastrium, and dryness of the mouth. This was soon succeeded by an increase of saliva, repeated eructations, and slight nausea; these symptoms increased until about 11 o'clock, when he felt inclined to vomit. He sought relief by walking about in the open air, but in vain, and soon after vomited, together with other matters, a portion of the bread. At half past 11, he vomited the remaining portion; and in ten minutes after he vomited a third time, with much retching. As his stomach was previously emptied, the third fit of vomiting only discharged mucus. The sickness now decreased, but some nausea, and an increased flow of saliva continued the whole day, during which he felt no desire for food, and in the evening still complained of weakness. In *C*'s case, the nausea, increased flow of saliva, tormina, and headach, commenced in one hour after the *dose*. He felt himself so sick in the stomach, that he could procure no relief, either by an horizontal position, or by walking about in the open air. The nausea and headach, together with violent pain in the abdomen, continued until 2 o'clock, when he dined, but of course without feeling any relish for his food. After dinner, however, he found himself somewhat better, and a few loose stools about eight in the evening were followed by complete relief. *D* said, that in half an hour after swallowing the ergoted rye, he felt a sensation in his stomach, as if he had not eaten any thing for several days. This sensation soon rose to actual hunger, so that at 11 o'clock he felt himself obliged to eat his dinner, which he did with a good appetite. In a quarter of an hour after dinner, he felt himself sick in the stomach; experienced an increased flow of saliva, and considerable pain in the belly; and in a short time he vomited what he had eaten. The vomiting soon recurred, and the nausea and tor-

* We suppose this experiment, like the preceding one, began at 9 o'clock.

mina continued until 5 P. M. when he had a rigor of several minutes duration, followed by a moderate sweat, after which the pain ceased, and he no longer found himself unwell. *E* felt an increased warmth in the epigastrium at 10 o'clock, and griping pains, his pulse too was hurried, and his face warm and red; at half past 10, he experienced a disagreeable sensation in the head, soon followed by a headach, and a sensation of dryness and burning heat in his mouth and throat. The latter were, in the course of half an hour, succeeded by an increased secretion of saliva and mucus, which made it necessary for him to spit constantly. This was accompanied by severe pains in the epigastrium and nausea, which, at 11, was very distressing. The tormina became now so painful that he could no longer hold himself erect, and, even when in bed, he was obliged to lie with his body bent towards his legs. Although the nausea increased, yet he could not vomit even with the assistance of tickling the fauces, so that from 11 to 12 o'clock, his situation was truly pitiable; towards one, some thin and fetid stools, preceded by borborygmi and flatus, were procured.

These experiments fully establish the pernicious effects of ergoted rye, and others made by the same gentlemen prove that it loses its pernicious qualities when *thoroughly roasted*, for they experienced no bad effects from doses of two drachms of the dried (gedörrten) powder. It was likewise proved that the activity of this substance is not impaired by keeping for two years. A number of experiments were likewise made on men and animals with bread made of ergoted rye, and its bad effects were precisely similar to those already detailed. Fresh bread, still moist and warm, seems its most active vehicle.—*Edinb. Med. and Surg. Journal.*

MEDICAL JURISPRUDENCE.

*On the Establishment of the Respiration in the New-born Child.**—In a paper inserted in the Mémoires de l'Académie des Sciences, for 1769, Portal advanced an opinion that the right lung, in the new-born infant, respires before the left. He also adduced some facts to show that the inflation of the latter does not take place until some time after birth.†

In Paris and Fonblanque's Medical Jurisprudence these opinions of Portal's are regarded as established facts; and further, we find a statement that a physician to a foundling hospital on the continent, who had been daily accustomed to examine the bodies of the infants which died soon after birth, had generally found only one or two square inches of pulmonary structure, crepitous or permeable to air: from which fact it is inferred that the complete inflation of the lungs does not take place

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* Mr. Jowett in a letter to the Editor.

† The paper in question is reprinted in Portal's Collection, entitled, "Mémoires sur la Nature et le Traitement de plusieurs Maladies," Tome 1ier. pp. 29-43. (Paris, 1808, 8vo.)

immediately after birth; but that the respiration is established in a *gradual* manner.

Soon after I had commenced the use of the stethoscope, it occurred to me that the correctness or incorrectness of these facts might be satisfactorily determined by examining the respiration immediately after birth by means of the cylinder. I accordingly made the experiment, and the result of repeated examinations has uniformly been, that *vesicular respiration* (or the respiratory murmur occasioned by entrance of air into, and its expulsion from, the air-cells) is audible *throughout both the lungs*, as soon as the child has made its first inspiratory efforts.

This experiment proves that the function of respiration is completely established immediately after birth; and therefore controverts Portal's ingenious hypotheses, and the opinions drawn from the appearances the lungs present after death.

I am not disposed to question the correctness of the statement, that there is seldom more than a small part of the lungs found to be crepitous or pervious to air, as it accords with my own observations in most of the opportunities I have had of making such investigations. But it appears to me, that, in the new-born infant, as in the adult, a considerable extent of pulmonary structure that has once been inflated in the act of respiration, may again be rendered impervious to air, by disease or by changes which take place in the dying moments: and, for want of attending to these circumstances, I think an error has been committed, in regarding the noncrepitous portions of lungs (that have evidently respired) as not having been inflated. We frequently observe inflammatory engorgement, hepatization, tuberculous infiltration, œdema, sanguineous engorgement caused by obstruction in the circulation, &c. rendering a great portion of the lungs so dense as to sink in water; and some reasons incline me to regard the last of these states as a common cause of the appearances observed in new-born children.—*Lond. Medico-Chir. Rev.*

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*Important Toxicological Experiments.**—The word antidote was formerly employed to designate the substances supposed to possess the property of counteracting in the animal economy the deleterious effects of certain poisons; but, of late years, toxicologists not finding any of these precious medicines stand the test of experiment, have restrained the acceptation of the word, and applied it only to such chemical agents as are capable of rapidly decomposing or combining with the poison, and of transforming it thus into a new compound, the action of which is no longer dangerous. By substances, possessing these qualities, it is impossible to act upon the poison that has already been absorbed, or to diminish the

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* On the use of iron as an antidote for most of the poisons belonging to the class of metallic salts. By Dr. H. Milne Edwards and Mr. J. Dumas, Professors of Chemistry.

effects it may already have produced on the digestive canal, &c. but one may hope to render innocuous that portion of the deleterious substance still remaining in the stomach, and to preserve life by putting a stop to the action of the poison before it has continued long enough to produce fatal effects.

It is in this manner that, according to Messrs. Dumas and Milne Edwards, the new method of treatment communicated to the Philomatic Society of Paris, by those gentlemen, on the 19th of August, may be productive of the most beneficial effects in numerous cases of poison. It is founded on the known innocuity of metallic copper, mercury, lead, &c. many of the compounds of which are most deadly poisons ; and, on the property which iron possesses of decomposing the salts of these metals, and of reducing their bases. Thus, when a piece of iron is placed in a solution of acetate of copper, for example, the salt is quickly decomposed, and copper in a metallic state deposited on the surface of the iron.

As yet the efficacy of this substance has only been tried by Messrs. Dumas and Milne Edwards in cases of poison by verdigris, carbonate of copper, acetate of copper, sulphate of copper, and corrosive sublimate, but it is probable that it will be found equally useful in many other cases. All toxicologists agree that 12 or 15 grains of acetate of copper always destroy a dog in the space of a few hours, provided the œsophagus be secured so as to prevent the poison from being rejected. In the experiments of Messrs. Dumas and Milne Edwards, from 15 to 50 grains of that compound were administered in the same manner, and about an ounce of iron filings injected into the stomach before or immediately after the symptoms denoting the deleterious action of the poison had begun. The œsophagus was then tied as in the former cases, but the animals instead of expiring in the space of three or four hours were, in general, by that time, pretty well recovered from the effects of the poison, and survived 5, 6, 8 days or longer ; so that their death was evidently occasioned only by the ligature of the œsophagus. In one experiment the ligature was taken off the day after the poison had been given, and the wound closing sufficiently to permit deglutition, the animal recovered perfectly, and 16 days after was made use of for another experiment. After the administration of verdigris, carbonate, and sulphate of copper, the use of iron filings was equally successful; but, with the last of these salts, it was found that the addition of a small quantity of vinegar rendered the action of the antidote much more certain. The same substance administered in the way we have just mentioned, equally hindered corrosive sublimate given at the dose of 12, 15, or 18 grains, from producing death, as is constantly the case when given alone.

The experiments of Messrs. Milne Edwards and Dumas, not being as yet published, we have not been able to lay before our readers all the details necessary to enable them to judge of the practical use of this new method of treatment in cases which unfortunately so often baffle the skill of the physician; but the importance of the subject induced us to insert the above communication, and as soon as it is in our

power, we will return to the subject and examine it with all the attention it deserves.—*Ib.*

Personal Identity.—The following case is alluded to by *Fodere, Medécine Legale*, vol. i. p. 28. and quoted from him in *Paris and Fonblanque's Medical Jurisprudence*, vol. iii. p. 144. We are indebted for a minute detail of the circumstances to the *Causes Celébres, par Mejan*, vol. iv. p. 329.

On the 14th of May, 1808, at 10 P. M. the Sieur Labbe, Mayor of the Commune of Foulanges and Department of Calvados, in passing on horseback along the highway with the widow Beaujeau, his servant, on foot, was fired at with a gun from behind a ditch and through a hedge. He was wounded in the hands. It was an hour and forty-three minutes before the rising of the moon, and the night was dark, yet both Labbe and his servant swore, that they recognised the assassins by the light of the discharge. One of the persons accused was arrested, tried, and condemned to death; but an appeal was taken to the Court of Cassation. The advocate consulted M. Lefeore Gineau, member of the Institute and professor of experimental physics in the Imperial College of France, *whether it was possible that the priming* (amorce) *in inflaming could produce light sufficient to discover the face of the person firing?* Gineau, with his son, and Dupius and Cuassin also professors, Messier a member of the Institute, and several others, retired on the 8th of December at 8 P. M. into a dark room, and there Professor G. fired several primings, the spectators being stationed at different distances, in order to witness the effect. The light produced was strong, but fuliginous and so rapidly extinguished, that it was impossible to distinguish the individual firing. "A peine etait-il possible d'entrevoir la forme distincte d'une tête. On ne reconnaisait pas celle du visage." They then descended into the court-yard of the College, loaded the gun with powder, but the results, on discharging, were the same.

The condemned was discharged.

Domestic.

Nyctalopia. Extract of a letter from T. R. Burden, M. D. to B. Delevan, M. D. Surgeon in the United States Army.—Nyctalopia, a disease common to seamen and soldiers in the East and West Indies, and indeed to the natives and visiters of tropical climates, has been known in all ages. In this country it has been supposed to be very rare. I do not recollect having met with any description of it as occurring in the practice of American surgeons, and believe it is generally unknown to the profession in the United States. I am disposed, however, to think that it is not uncommon in the southern sections of the Union; attended with no pain in most instances, and never interfering with the daily occupation of its subjects, persons are not induced to seek surgical aid, and perhaps are sometimes deterred from the dread of an operation which the ignorant think inseparable from the treatment of diseases of the eye.

Whilst attached to the command of Col. Brooke, of the 4th United States Infantry, at Tampa Bay, in East Florida, I met with several cases of nyctalopia. They were the first I had seen; and as is usual with army surgeons at out-posts, I had no surgical works to refer to, and had to depend on my own resources to ascertain the nature and mode of treatment of this imperfect form of amaurosis. The soldiers affected had been stationed at fort Barrancas, on the western shores of Pensacola Bay, where they were exposed to the reflection of the sun from the white sand which surrounds that fortress.

During the voyage from Pensacola to Tampa, they had all been affected with sea sickness, the inseparable attendant of a storm, without experiencing any change in the diseased vision. They did not apply to me for relief until the troops had encamped, and were engaged in building the cantonment. The appearance of the disease was as follows:—During the day the sight continued unimpaired, but on the approach of night a mist appeared before the eyes, which gradually increased until the patient was totally deprived of sight. He was not sensible of the light of a candle, and that from the bright fires before the tents had no effect on vision.—In the morning sight was gradually restored, and he was able to see the most minute objects distinctly, and as well as those who were free from disease. During the day there was no alteration in the natural appearance of the eye; at night the pupil was dilated and motionless. I could not ascertain any intermittent or periodical character in the disease. One soldier was in the hospital with dysentery, which had no effects on the nyctalopia, neither did I perceive that intoxication produced any aggravation of symptoms. The first case I suspected was simulated, as soldiers frequently resort to expedients to escape guard duty, and prefer such diseases as are least likely to be detected by the surgeon. My expe-

rience as physician of the Philadelphia prison, had made me acquainted with the mysteries of this class of imposters, and the proper mode of treatment to be adopted with this kind of patients, and suspicion led me in this case to the knowledge of a remedy which has rendered nyctalopia manageable in my hands.

The second was a case in which there could be no motive to deceive, for the man was employed as company clerk, and had no guard duty to perform; he continued at the writing-table of his own accord during the day, but was unable after night to walkout of his tent without a conductor. He experienced no inconvenience from his occupation.

I had six cases of this disease in the month of March, all of which were cured. I left the post in July, at which time there had been no relapses. Viewing nyctalopia as a debilitated state of the optic nerve, produced by the reflection of the sun's rays from a sandy shore, and by a damp situation, I did not recur to general and depleting remedies. The incessant vomiting at sea had made no change, and the dysentery, in one case, had no effect on the diseased state of the eye. No alteration in diet was directed, as in army practice; I am convinced that in general, it is, to say the least, unnecessary. I treated it as a local disease; adhesive plaster spread on leather the size of the hand, and sprinkled with tartar-emetic, was applied to the back of the neck, the part having been previously bathed with warm vinegar. The second application always removed the disease, and restored the patient to perfect vision.

I have since tried this application in various diseases of the eyes, and having been satisfied with the results, I give it a decided preference to the use of blisters, or even setons.

In mania-a-potu, when the tartrite of antimony is used, it seems to produce effects not altogether attributable to its emetic property.—Whether externally it possesses any other than an irritating power, I am not prepared to say, it has been, however, so successful in my hands, in the imperfect forms of amaurosis, that I hope you will give it a trial.—*Am. Med. Rev. and Journal.*

A Case in which a Scirrhous Enlargement of the whole of the Parotid Gland was successfully extirpated. By George M'Clellan, M.D.—During the past winter, Mr. now Dr. John Graham, a well educated and very intelligent young surgeon from Dublin, attended the lectures of the medical faculty of Jefferson College, for the purpose of becoming a candidate for the degree of doctor of medicine in that institution. As his left eye, and indeed the whole of the left side of his face, was evidently distorted, and as he wore his shirt-collar uncommonly high, I always suspected the existence of some disease, which impaired the functions of the facial nerve of that side. But I was not aware of the nature of the irritating cause, until at the end of the session, he applied to me for the purpose of getting my advice in regard

to the treatment of an enormous tumour in the situation of the left parotid gland.

On examining the diseased part, I was immediately struck with the appearance of a large and irregular cicatrix over the most prominent surface. On inquiring into the cause of this circumstance, I was informed that it proceeded from an ineffectual attempt previously made by an eminent surgeon of Dublin, to extirpate the tumour. The operator himself, and several other respectable surgeons and physicians, who were present at the operation, at that time, as Mr. Graham assured me, were very positive in the opinion that the disease was an enlargement of the whole parotid gland. All the other surgeons who had, after that period, examined the case, joined, as far as his recollection served, in the same opinion. The appearance of the tumour itself, and the symptoms which attended it at the time when I first saw it, also tended strongly to corroborate that conclusion. It must be supposed, therefore, that I was exceedingly cautious in giving any advice in favour of a repetition of the attempt to extirpate the tumour. But the patient himself, and he was by no means unfit to form a judicious opinion, was very anxious to have me make one effort to relieve him. The diseased part had also become exceedingly painful; and his left eye-lids were permanently prevented from closing, in consequence of which the eye-ball was constantly affected with a very troublesome chronic inflammation. I had, moreover, long been prepossessed with an idea that the conglomerate glands are rarely, if ever, totally diseased; and that surgeons had often mistaken enlargements of the conglobate glands of the cheek for diseases of the subjacent parotids, in which they may become imbedded in consequence of pressure and absorption.

Reflecting on all these circumstances, and indulging a faint hope that the operation would not prove so formidable as I had at first anticipated, at the same time that I was strongly incited by the solicitations of my unhappy patient, I finally determined to make at least an attempt to extract the tumour.

On the 27th of February, therefore, in presence of my friend professor Smith, and several of my pupils, I performed the operation in the following manner: Two curvilinear incisions were first made, from a little above the zygoma downwards, to meet about two and a-half inches below the angle of the jaw, in such a manner that nearly the whole of the old cicatrix was included between them. After having reflected the integuments from the surface of the tumour, I next dissected down to the zygoma and masseter muscle before, and to the cartilaginous tube of the ear, and mastoid process behind. As no impression had then been made upon the body of the tumour, and as I could dissect no farther in either of those directions, I immediately proceeded to burrow under the lower extremity of the mass. In endeavouring to accomplish that step in the operation, I was necessarily obliged to divide the posterior belly of the digastricus muscle; after which my fingers were at once admitted under the whole body of the tumour, and I was enabled to make effectual attempts to

wrench it from its bed. Before I proceeded farther, however, I insulated the continued trunk of the external carotid, just as it was entering the tumour, together with the descending veins, which accompanied it; and, instead of cutting them across in the usual manner, I tore them out from the body of the tumour, with a thumb and finger. My face and eyes were instantly deluged with a gush of blood; but before I could recover myself sufficiently to cast a ligature around the vessels, which I still commanded with my fingers, the hæmorrhage altogether ceased, in consequence, no doubt, of the retraction and contraction of the lacerated extremity of the artery. I was then enabled to proceed with full deliberation; and, after powerful and repeated efforts at wrenching, aided by an occasional use of the knife to divide the strong bands of condensed cellular substance, and some of the fibres of the styloid muscles which adhered to the tumour, I finally succeeded in elevating the whole mass above the ramus of the jaw, and mastoid process. The trunk of the *portio dura*, very much enlarged in consequence of the previous irritation, was then seen emerging from under the mastoid process, and mounting over the posterior margin of the tumour to enter its substance near the anterior surface. The unnatural state of tension in which this exquisitely sensible nerve was then placed, produced such an agonizing degree of pain, that the sufferer was thrown into convulsions and syncope. I made all haste to divide the nerve,* therefore, and the patient was soon restored to his natural state of sensibility and apprehension. To complete the operation, I had then nothing more to do than to separate the upper portion of the tumour from the zygoma, which I was compelled to effect by the scalpel, inasmuch as the layers of fascia were too strong to be lacerated. In this last step of the operation, the main trunk of the temporal artery was necessarily cut, in consequence of which a profuse hemorrhage took place from the recurrent circulation. I was, therefore, obliged to apply a ligature, which was the only one employed during the whole operation. What became of the internal maxillary artery, I could not discover, although there can be no doubt that it was torn asunder in the act of wrenching the deep-seated portion of the tumour from behind the angle and ramus of the jaw.

In consequence of the faint, and almost exhausted state in which the patient remained for some time after the operation, there was much less oozing of blood from the exposed surfaces than could have been anticipated. Our view of the parts composing the parietes of the wound, therefore, was not at all obstructed; and the anatomy of the whole could be almost as clearly pointed out, as in the dissected subject. The cavity of the wound was certainly the deepest and most frightful that I have ever seen in the living body. It appeared much larger at the bottom than on the surface, and its depth was full four and a-half inches from the skin to the walls of the pharynx, which was largely exposed at the bottom of the wound.

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* As soon as this was done, the cells of the conjunctiva were instantaneously injected with extravasated blood.

The styloid process, entirely bared, and even divested of a large proportion of its muscular fibres which had been torn away with the tumour, projected into the back and lower part of the wound. The internal carotid and jugular vein, together with the hypoglossal nerve, which were barely covered with some loose cellular tissue, formed the posterior parietes of the deep and expanded part of the cavity that was situated within the ramus of the jaw before, and the mastoid process behind. With a finger, introduced behind the ramus and angle of the jaw, could be felt the two pterygoidei muscles, which were completely exposed and projected into the cavity in that situation. In fact the tumour appeared to have projected into, and to have filled up every space into which the parotid itself could possibly have insinuated; and no vestige of any portion of that gland, either sound or morbid, could be discovered in any part of the exposed cavity.

As I was anxious to avoid, if possible, the use of ligatures around the lacerated extremities of the arteries which had been torn across during the operation, I waited some time to ascertain whether there would be any danger of hæmorrhage. As nothing more took place, however, than a slow oozing of blood, which gradually coagulated, and filled up the cavity of the wound, I did not hesitate in depending on the external dressings alone. To prevent the edges from being reflected inwards, I first applied three interrupted sutures; after which some adhesive strips and a compress of lint were fastened on by a head-bandage.

For the first three days after this operation, the situation of my patient was truly alarming. The powers of his nervous system appeared to have been greatly shattered; and, notwithstanding the free use of opiates, the symptoms of constitutional irritation ran very high. The secretion of urine was almost entirely suppressed; and when, on the second day, the first few drops began to be discharged through his urethra, a severe and excruciating strangury came on. Spasmodic contractions, also, frequently took place in the muscles of the extremities; and a most distressing pervigilium, which no plan of treatment could, for all that length of time, counteract, rendered the prospect of his recovery still more uncertain.

But the most alarming of all his symptoms was the fact that, in the course of a few hours after the operation, he found it impossible to convey any thing into the œsophagus. Whether this difficulty proceeded from mere nervous irritation, or, as I supposed, from a collapse of the parietes of the pharynx in consequence of its exposure, and the laceration of the stylo-pharyngeus muscle; or whether it was caused, as the patient himself imagined, by the pressure of the large coagulum, which was confined in the wound, upon the internal and membranous walls of the same cavity, it was not easy to decide. But it was certain, that not the smallest particle of any substance could, for the space of two days, be swallowed; and when an attempt to drink any fluid was made, universal convulsions, precisely like those which occur in hydrophobia, immediately supervened.

By the use of opiate injections, however, and the application of warm stupes around the pelvis and abdomen, the distressing symptoms of strangury, and the spasmodic twitches of the muscles, first began to disappear. Soon afterwards, as I was preparing to inject some fluids down his œsophagus by means of a stomach tube, the patient made a successful attempt at deglutition, which gradually became more easy, and, of course, less complicated with the convulsive actions. The young gentlemen who were in attendance, attributed this to the effects of a copious secondary hemorrhage which had, a short time previously, taken place from the wound in consequence of a severe spasm of the muscles about the throat.

Suppuration was very slow in taking place from the wound; but finally, after the use of a decoction of bark, and the application of large fermenting poultices, it became established and dissolved away the enormous coagulum. Before the cavity, which almost became converted into an abscess, could be evacuated, however, I was obliged to re-open the wound with the point of a bistoury. Granulations then speedily sprouted up, and completed the recovery of my fortunate patient.

The cicatrix, which has become very firm, is sunk into a deep hollow behind the angle of the jaw. But the countenance is by no means so much deformed as it was before the operation, especially as the part can now be easily covered from the observation of a by-stander. The paralysis of the muscles, and the distorted appearance of the eye are, moreover, greatly improved; and the situation of the patient, as regards the use of his jaw, and the power of moving his head, has become incomparably better.—*Ib.*

Trial for Nuisance at the New-York Court of Sessions.—The Court of Sessions have been occupied for the last two days in a very interesting trial. It was on an indictment against the New-York Chemical Manufactory, charging their works at Greenwich with being a public nuisance. The evidence was long, and we shall confine ourselves to a recapitulation of the testimony, showing the leading facts on each side. It appeared from the testimony of Dr. John Leet, the prosecutor, that his dwelling-house is within 60 feet of the chamber of the factory; that two or three times a day at the opening of the chambers, he has been extremely annoyed by the effluvia proceeding from the factory; that it excited coughing and difficulty of breathing, and affected one of his children so as to cause bleeding at the nose; that he was obliged to remove his horses from the stable in conse quence of it, and that it had completely destroyed his garden and vegetation, and withered the leaves on the trees. On his cross-examination, he stated, that he followed horse-doctoring, and had the largest *horse infirmary* on the island; that he was originally employed as the agent of the company for the purchase of the land on which the factory stood, and had received compensation therefor. The Doctor was also hard pressed by the

counsel with regard to the manner which he disposed of his *dead patients*, but denied that any bad effects proceeded from them. In his own language "there was not a sweeter place on the island," were it not for the chemical works. There was also some evidence about conflicting interests in land between the Doctor and the Company—the Doctor wishing them to purchase his land, and demanding 4500 dollars therefor, but refusing to tell what it cost him further than that he had only a lease of it for thirty-six years *rent free.*

Jos. Chamberlain now testified, that he lived about fifty rods from the factory, in an opposite direction from the Doctor; that he occasionally, when the wind blew in his direction, felt some inconvenience from the gas, that it excited coughing, and difficulty of respiration, and affected the vegetation, killing the cucumbers, squashes, &c. and turning the leaves on the pear-tree black.

Cross-examined. Mr. Chamberlain said, he had not experienced any inconvenience from the Doctor's infirmary, although he has from his *dead patients;* that it is not a thickly settled place around the factory; that he himself has a rum distillery there, and there is a glue factory a little above, besides the Doctor's hospital.

Messrs. John Boyd, Samuel L. Cray, Stephen C. Roe, and Dr. Moore, testified, that they had been at Leet's, and felt the effects of the gas; but that it was a temporary inconvenience, and no permanent injury resulted from it. The last witness further stated, that he had had a conversation with Morrison about it, and he had agreed to submit to three impartial men what was the value of Leet's property and his damage, and pay him for it, to which Leet objected, saying three *impartial* men would not undertake it. The prosecution here rested, and Mr. Anthon submitted to the court, whether, under the evidence produced, they should enter into their defence. He then entered into an explanation of the law relative to nuisances and the distinction laid down by writers between public and private nuisances. This he contended was a private nuisance, and that Dr. Leet must have recourse to his civil remedy, that a criminal prosecution would only lie where the injury was general, and such as to affect the whole neighbourhood; that in cases where the injury was confined to a few, a civil remedy must be resorted to, and this for obvious reasons, inasmuch as a company might be ruined merely for the purpose of pleasing one or two individuals. On the contrary, where the injury was general, a public prosecution would alone lie, as were it otherwise, a multiplicity of suits might be commenced against the company, and it would be equally injurious to the company. Here he said every precaution had been taken by the Company; they had located their factory in the most convenient spot they could select, in the suburbs of the city, in a marshy spot of ground and where there were few inhabitants. Mr. Anthon cited the case of the King *v.* Morris, Blackstone's definition of public nuisance, and the case of the three Lawyers in Clifford's Inn against a Tinman, who had located himself in their neighbour-

hood, and by his noise prevented their paying that attention the cases of their clients required, in which Mr. Anthon observed, although the court if in any case were disposed to consult the wishes of the complainants, it was decided not to be a public nuisance, and that the parties must have recourse to their private remedy. After some little discussion, in which it was intimated by the Court that they considered the law, as laid down by Mr. Anthon, as correct, on a suggestion by Mr. Ogden that they had more evidence to produce, the defence commenced.

Dr. Dana was then called by the defendants, and testified to the various branches of the arts in which vitriolic acid is employed, viz.—in the manufacture of leather, hats, in bleeching, and dying, in the manufacture of artificial soda water, blue vitriol, green vitriol, aqua fortis, muriatic acid, &c. He further stated, that there were similar establishments in large towns, one in Boston, and two in Birmingham.

Dr. Mitchill was next called to the same effect. The Doctor ascended the stand, and being questioned as to the properties of sulphuric acid, commenced as follows :—the productions, of which sulphur is the basis, are very numerous and very various in their operations. In the case now before the Court and jury, sulphur is exhibited in the form of sulphurous acid vapour. Of the properties of this vapour and its deleterious effects in a confined atmosphere, we have abundant proofs. Farmers in the country are well aware of this, and we find them when about to destroy bees to obtain the honey, placing burning sulphur under the hive. Every sailor who understands his business is also aware of its efficacy of clearing the ship of rats. Notwithstanding traps and cats are on board, these vermin will abound, and we then find the sailor closing up his hold and filling it with burning sulphur, by which means these noxious animals were destroyed. Further, we read in holy writ that Sodom and Gomorrah were destroyed by fire and brimstone rained down from heaven ; and on my late visit to the factory, I was cautioned against going too near the chambers. Some one of the company remarked, that it was of no consequence, that we might as well accustom ourselves to it at present, and it would come easier hereafter, as you know it is stated the wicked are to go to some such place. The Doctor then entered into an explanation of various acids, and the combinations of iron and copper, by which blue vitriol and green vitriol were produced from sulphuric acid. It was evident, he said, that a man might be smoked to death in a smoke-house. It was a matter of prudence to avoid a smoky room, he, himself, would not live in a smoky room, but would get out of it as quick as possible. The Doctor identified the sulphur seen at the factory, as sulphur from Mount Ætna, referred to a tract of Doctor M'Bride, of Dublin, spoke of his landing when a boy in France, and a chemical manufactory he visited near the mouth of the Bay of Biscay, descanted on the increased duties of the new tariff, remarked on the case of Deel's Glue Factory, in Spring-street, where the neighbours had built around and had then indicted him and broken up his establishment ; also,

that of the New-York Hospital, against which he said there was a foul conspiracy, to cause its removal, but that they would find it a mountain to move—praised the dinner lately given by the Company, and concluded the whole by stating that there was nothing in sulphurous acid as capable of producing either an endemic or epidemic disease, but was perfectly harmless in a free atmosphere.

Mr. Southwade was then called. He testified, that he was the superintendant of the works; that he lives within 150 feet of the chambers, and has a family of seven persons, who all enjoy uninterrupted health; that they have from 40 to 70 men employed in the factory, all of whom, without a solitary exception, enjoy good health; that his garden adjoins Leet's, and though at the first of the season his vegetables suffered some during the drought, he raised a fine crop of cabbages, potatoes, and turnips; that at times he feels the gas in his house, and it excites a little coughing, but that it passes off immediately; that he has a school of children in his house, who run all over the factory, and he never heard of their being affected with bleeding at the nose.

There was a great deal more testimony to the same effect as the preceding given on both sides. Of the number of witnesses, however, for the prosecution it appeared, that but four lived in the neighbourhood of the factory. Dr. Pascalis and others testified to its not being insalubrious, and the cause was submitted without argument to the jury, under the charge of the Court, which was, in effect, that though this might be a nuisance, as it undoubtedly was to Mr. Leet, it was not sufficiently general to become a public nuisance, and the parties must have recourse to their private remedy. The jury accordingly returned a verdict of *not guilty*.

Counsel for the prosecution, H. Maxwell, District Attorney, and T. L. Ogden; for the Company, W. A. Seely and Anthon.—*N. Y. Even. Post, Jan.* 10.

QUARTERLY BIBLIOGRAPHICAL NOTICES.

1. *A Dissertation on the Remote and Proximate Causes of Phthisis Pulmonalis; to which the prize was adjudged for the year* 1825, *by the New-York State Medical Society.* By ANDREW HAMERSLEY, M.D. &c. With Notes, Critical and Explanatory. Second edition, revised and corrected. 12mo. pp. 99. New-York, 1827.

The reason assigned for the publication of this edition is thus expressed by the author in his preface:—"The ensuing pages, after but a short interval from the period of their first publication, and under the following circumstances, are again submitted to the medical public. Originally published in one of the medical journals of this country, while a wide circulation was in many respects given to them; others, not having access to such periodical, were thus unable to peruse them. To supply such deficiency, of which the writer has had sufficiently gratifying intimation, more especially from the members of the State Medical Society, a large number of whom remain unfurnished with a copy, the present edition has been undertaken. To enhance whatever merit the work may possess, it has been carefully revised, both as regards its composition, and the opinions it conveys."

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2. *A Review of the Diseases of Dutchess County, from* 1809 *to* 1825; *being the subject of two Addresses, read before the Medical Society, at their annual meetings in* 1819 *and* 1825. *Also, an Essay on a Disease of the Jaw-bones. To which is added, an Appendix, containing Notes and Elucidations.* By HUNTING SHERRILL, late President of the Dutchess County Medical Society. 8vo. pp. 184. New-York, 1826.

☞ See Review.

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3. *Treatise on the Theory and Practice of Physic.* By GEORGE GREGORY, M.D. *With Notes and Additions, adapted to the Practice of the United States.* By NATHANIEL POTTER, M.D. Professor of the Practice of Physic in the University of Maryland, and S. COLHOUN, M.D. 2 vols. 8vo. Philadelphia, 1826.

The Treatise of Dr. Gregory is an admirable work, and we are much pleased to see it re-printed in this country. It will, in a very short time, wholly supersede the unscientific and crude work of Dr. Thomas, which has so long been forced upon us. The American Editors, besides adding copious notes, have very largely interpolated the text of the author. This is a liberty which no editor, in our opinion, has a right to take; and we hope, that in the next edition all the additions will be thrown into the form of notes.

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4. *An Inquiry concerning that Disturbed State of the Vital Functions usually denominated Constitutional Irritation.* By BENJAMIN TRAVERS, F.R.S. Senior Surgeon to St. Thomas's Hospital, President of the Hunterian Society of London, &c. &c. 8vo. Re-printed New-York, 1826.

5. *The Quebec Medical Journal.* Conducted by X. Tessier. No. 4. In Exchange.

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6. *A Treatise on the Diseases of Females.* By Wm. P. Dewees, M.D. adjunct Professor of Midwifery in the University of Pennsylvania. pp. 557. Philadelphia, 1826.

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7. *American Modern Practice: or a Simple Method of Prevention and Cure of Diseases, according to the latest improvements and discoveries, comprising a Practical System adapted to the use of Medical Practitioners of the United States,* &c. &c. A new edition improved. By James Thacher, M. D. A.A.S. pp. 796. Boston, 1826.

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8. *A Treatise on Special and General Anatomy.* By William E. Horner, M.D. adjunct Professor of Anatomy in the University of Pennsylvania. 2 vols. 8vo. Philadelphia.

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9. *A Treatise on Physiology applied to Pathology.* By F. J. V. Broussais, M.D. &c. Translated from the French by John Bell, M.D. &c. and R. La Roche, M.D. &c. Philadelphia, 1826. 8vo. pp. 559.

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10. *The London Practice of Midwifery; including the Treatment during the Puerperal state and the principal Infantile Diseases. To which is added, Notes, Plates, and Denman's Aphorisms.* By an American Practitioner. Sixth edition, much enlarged and improved. Concord, (N. H.) 1826. pp. 335.

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11. *Circular and Catalogue of the Faculty and Students of the College of Physicians and Surgeons of the Western District of the State of New-York, in Fairfield, Herkimer County.* Albany, 1827. pp. 8.

From this catalogue we are happy to learn, that the number of Students attending this College has greatly increased since the last year. They now amount to one hundred and forty-four. Rising as this Institution is daily in fame and in the confidence of the public, its learned and able Professors have only to pursue the honourable course which they have hitherto adopted, to make it one of the first Medical Schools in our country.

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12. *Introductory Lecture to a Course of Lectures on Anatomy and Physiology, &c.* By John D. Godman, M.D. 8vo. pp. 44. New-York, 1827.

This Lecture, though containing nothing original, is pretty enough in its way. A note of four pages is appended to it, written in a style of great heat and passion—and containing several statements, the accuracy of which we must beg leave to call in question. As we do not wish to believe this to have been intentional, the only explanation we can give is the fact of Dr. Godman's being a stranger in our city. When he shall have resided a little longer with us, and have had access to better sources of information, we have no doubt he will write with greater coolness and precision.

INTELLIGENCE.

With much pleasure we give place to the following. From our knowledge of Dr. Wagner, as an highly accomplished surgeon and anatomist, we cannot but wish him every success in his undertaking.—Ed.

CHARLESTON ANATOMICAL ROOMS,

For the Private Instruction in Practical Anatomy and the Operations in Surgery.

The subscriber will commence a Course of Dissections and Demonstrations in Practical Anatomy, on the *second Monday in October*, to continue until Spring; and will teach the art of making and preserving Anatomical preparations.

The Surgical Anatomy of all parts concerned, in the important operations, will be dissected and demonstrated; and the mode of performing all the surgical operations, as practised in the English and French hospitals, will be taught to such classes as may offer.

The Rooms will be provided with all the necessary Surgical Instruments, and with every convenience, for the improvement, comfort, and health of the Student.

TERMS.

Fee for the Dissecting Rooms and Demonstrations, - - - - - - $10
Fee for Demonstrations in Surgical Anatomy and Operations, - - 15

Private Pupils will be entered, at my office, in Broad-street, at the following fees; they will be examined three times in each week, upon the several branches of their Medical Education, and be entitled to tickets, for the Dissecting Room and Operations, *gratis*.

Fee for the Winter Season, - - - - - - - - - $ 60
Fee for one Year, - - - - - - - - - - - - - 100
Fee for the whole term of Medical Education, - - 300

JOHN WAGNER, *Surgeon.*

Anatomical Rooms, Queen-street, Sept. 25th, 1826.

N.B. In connexion with the above plan, and in order to afford every facility to the Surgical Student especially, Doctor Wagner has established a private Hospital, at his office, in Broad-street; where he will accommodate Slaves and Coloured Persons affected with such Diseases only as require surgical treatment. The Diseases of the Eye will, in an especial manner, receive particular attention, with the hope, of extending his plan, at some future day, into an Infirmary (such as is now established in New-York and other Cities) for the cure of Diseases of that important organ.—Surgical Patients, from the country, will be received, in like manner, as from the city.

To the Editors of the New-York Medical and Physical Journal.

London, 23d Oct. 1826.

Gentlemen,

In compliance with the request of the Secretary for Foreign Correspondence, of the "Medico-Botanical Society of London," and in according with my duty, I have to ask of you the favour of giving the following communication an insertion in your "New-York Medical and Physical Journal."

Respectfully your obdt. humble servt.

WILLIAM ZOLLICKOFFER,
No. 32 Sackville-st. Piccadilly.

—

To William Zollickoffer, M.D. &c. &c.
Corresponding member of the Medico-Botanical Society of London.

The Secretary of the Medico-Botanical Society of London presents his compliments to Doctor Zollickoffer, and would feel obliged by his procuring an insertion of the following notice of the proceedings of the Society in the New-York Medical and Physical Journal, and any other of a similar nature which he may think proper.

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MEDICO-BOTANICAL SOCIETY OF LONDON.

The first general meeting of the seventh session of this Society was held on Friday the 13th of October, 1826, at 8 o'clock P. M.

Sir James M'Gregor, K. T. S. Director General of the Army Medical Board, President, in the Chair.

After the usual business of the Society had been gone through, a letter from His Royal Highness the Duke of Clarence was read, desiring his name to be added as an honorary member, and regretting that his residence at Bushey Park excluded the possibility of his attendance that evening. The Director (Mr. Frost) then delivered his oration, in which he congratulated the Society on the rapid advance it had made during the last session, and the great benefits it had derived from the unwearied zeal which many of its members exerted in its behalf. He also informed the meeting, that their distinguished President had lately resolved that no person shall be admitted to an examination to qualify him to practice in the medical department of the army, without having attended, amongst other branches of study, Lectures on Botany for six months; the salutary effects of which regulation will, in a few years, demonstrate its utility.

Sir James rose to address the Society, and assured them, that he was performing but his duty in enforcing the regulation just mentioned, and, or any other of a similar nature which might conduce to the welfare and promotion of science; and concluded by moving, that the thanks of the So-

ciety be given to the Director, and that he be requested to make his excellent oration more public.

The Chevalier Castillo, Consul General for Spain in London, was introduced and admitted a Foreign Member of the Society.

Several letters from distinguished foreigners were read; among whom were, Barons Humboldt and Terussac, Mr. Wyttenbach, and Mr. Jacquin, whose diploma of Honorary Member was entrusted by the President to Mr. Nivenot of Vienna.

A communication from His Britannic Majesty's Vice-Consul for Guatamala, Mr. Schenley, was read, and the meeting adjourned to the 10th day of November, 1826.

J. P. YOSY,
Secretary for Foreign Correspondence.

—

P. S. The Honorary Fellows of this Society consist of the following distinguished individuals:

Earl Spencer, K. G. President of the Royal Institution.

Sir Humphrey Davy, Bart. President of the Royal Society.

Sir Henry Halford, Bart. F.R.S. F.A.S. President of the Royal College of Physicians.

Sir James Edward Smith, M.D. F.R.S. President of the Linnean Society.

Thomas Andrew Knight, Esquire, F.R.S. F.L.S. President of the Horticultural Society.

William George Maton, M.D. F.R.S. F.A.S. Vice-President of the Linnean Society.

—

The Officers of the Medico-Botanical Society of London consists of a President, six Vice-Presidents, a Director, a Treasurer, and a Secretary.

The Council, which is composed of fifteen members, includes the President, the six Vice-Presidents, the Director, the Treasurer, and the Secretary.

State Medical License.—Candidates wishing to obtain license to practice Medicine and Surgery, are informed, that the Censors of the State Medical Society for the Southern District will hold their examinations in the City of New-York. They are requested to apply to either of the Censors.

FELIX PASCALIS, M.D.
CHARLES DRAKE, M.D. } Censors.
JOHN B. BECK, M.D.

New-York, January 1, 1827.

TO READERS AND CORRESPONDENTS.

1. For the valuable Reports of Diseases which have been treated in the New-York Dispensary, and which have appeared in several successive numbers of this Journal, we are indebted to Dr. JOHN J. GRAVES of this city.

2. Our next number will contain papers from Drs. MANLEY, DE LEON, WEBBER, &c. &c. We are, also, promised communications from Dr. MUSSEY, the distinguished Professor of Anatomy in Dartmouth College, &c. &c.

3. In preparation for this Journal, a Review of the Progress of Botany in the United States, containing a particular account of the appropriations made to this object by the State of New-York, &c. &c.

4. Having been frequently inquired of, whether we did not intend noticing a *certain pamphlet*, which has just made its appearance, we deem it proper to state, that this Journal is exclusively devoted to the dissemination of useful knowledge and to sustaining the honour and respectability of the profession. That the course hitherto pursued in the conduct of this Journal has met the approbation of our professional brethren, has been satisfactorily evinced in the liberal patronage which it has received. This patronage, we are happy to say, is daily increasing; and we conceive that we should but poorly consult the respect which we owe to ourselves, or to our numerous friends, by polluting our pages with any notice of the production just alluded to. If the author be not totally lost to all moral sensibility, he will one day regret the numerous and base calumnies which he has circulated against the medical profession.

5. The Alleghany College, Pennsylvania, at their commencement in October 1826, conferred the Honorary degree of Doctor of Medicine upon Dr. HENRY SCHNECK, a graduate of the College of Physicians and Surgeons of this city.

6. *University of the State of New-York.*—The two Colleges of Physicians and Surgeons of the University commenced their regular courses of Lectures at the usual period. The number of Students attending the College in New-York is *eighty-eight*, and that of those attending the College in the Western District is *one hundred and forty-four*—making in all *two hundred and thirty-two* medical students attending the University of New-York. We are happy to state too, that the most perfect harmony

has been restored to every department of the University. The College of Physicians and Surgeons in this city, especially, may be considered as in a most sound and wholesome condition. Relieved of the *incumbrances* which have hitherto oppressed this Institution, like a perfect incubus, we hope it has nothing in anticipation but bright days of honour and prosperity. We do not see how, even with ordinary efforts, it can be otherwise. Being the only Medical College in this large and rapidly extending metropolis—patronized by the constituted authorities of the State—under the auspices of a Board of Regents comprising many of our first citizens for rank, learning, and intelligence—this Institution offers advantages equalled by few others in our country.

7. Professor Dana of the College of Physicians and Surgeons of this city, has in preparation a second edition of his excellent work on Chemistry. Of the merits of this work we have had occasion to speak in a previous number, and we are pleased to find that our opinions have been confirmed by judges in every respect competent to decide. It has recently been adopted as the text-book in two of our most respectable Colleges—viz. Columbia and Princeton.

8. We have seen the original drawings of a series of Engravings, illustrative of the different stages of the Small-pox and Varioloid diseases, which will shortly be published by Dr. J. D. Fisher. They are executed with great skill and beauty, and the whole work will be an exceedingly valuable present to the medical profession. We wish the publisher every possible encouragement.

9. *Medical Recorder.*—In justice to the writer, Dr. Fountain, we cannot deny a place to the following card:

A CARD.

"I was not a little surprised to find in the October number of the Philadelphia Medical Recorder a notice of my paper on irritation, in the form of an indecorous and abusive attack, highly evincive of the perverseness and illiberality of the writer's sentiments. The objects of medical journals, as far as I can judge, are to collect and disseminate all improvements in medicine, surgery, &c. Now, if an essay contains no improvements, it certainly has no claim whatever to notice; and the public are only insulted and pilfered of their time and money by being presented with that which is equivalent to nothing. The plan of *reviewing* the articles of one journal does not fall strictly within the province of another, unless the latter be wholly analytical, and not a mere recorder; and to review an essay, evidently for no other purpose but to make a display of one's ability in abusing it, is beneath the character of any man not a professed harlequin. I must be permitted to remind the sage conductors of the Recorder, that only a moderate share of intellect is requisite to censure and disjoint an essay;

and that it is as much easier to destroy than to build, as it is *to borrow whole reviews* than to write them. He who thinks to bolster up a reputation at the expense of other men's, will eventually find himself viewed more in the light of a blustering pest than a man of science.

JAS. FOUNTAIN.

"P.S. Since writing the above note, I have seen the January number of the Recorder, in which I perceive that the continuation of my Essay on Diseases of Irritation is barely noticed, with the view of extracting a solitary case for the benefit of the readers of that all-devouring receptacle of cases, but no information whatever is conveyed to them of the different subjects of which I treat. This omission I should pass over in silence, but the work having fallen in other hands, some show of fair dealing was to have been expected from the desire natural to all *novices*, on their first starting from obscurity, to ingratiate themselves with a public, ignorant of their claims to character or competency. Yet, why should I complain, when there are so many other instances besides my own in which the most gross illiberality, as well as the most shameful ignorance, have been displayed in the conductors of that spiritless journal?

J. F."

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